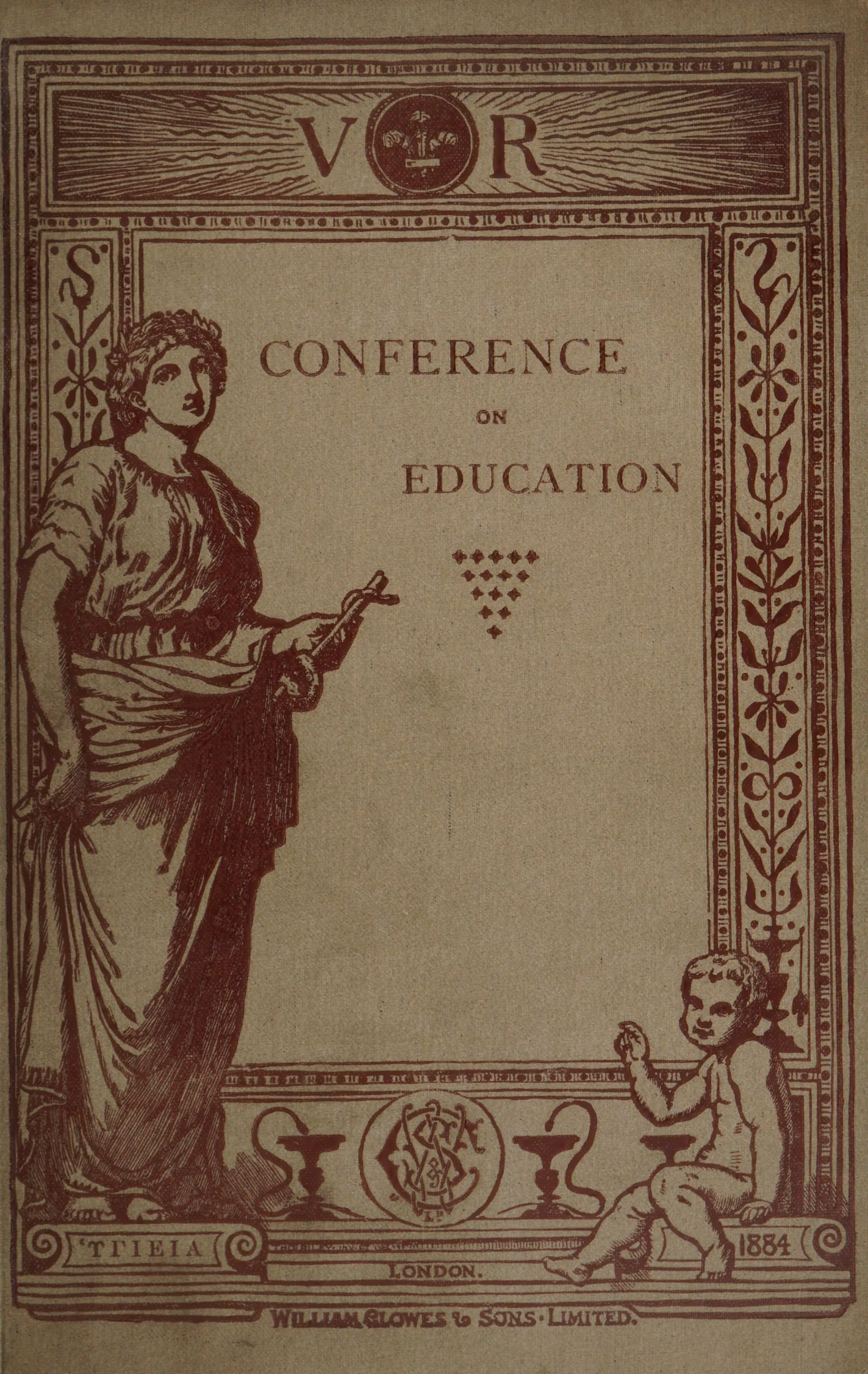
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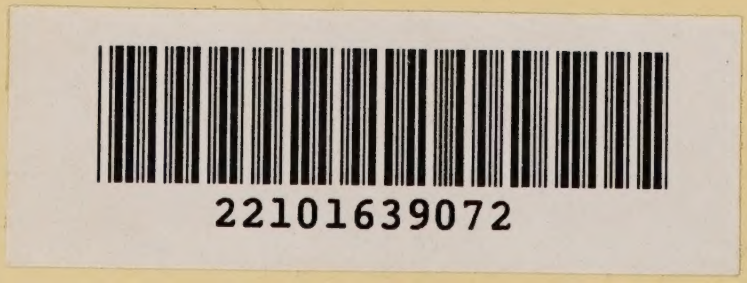

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International Health Exhibition.

LONDON, 1884.

THE

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* These Delegates were unable to attend the meetings of the Conference, but contributed papers.

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INTERNATIONAL CONFERENCE

ON

EDUCATION.

OPENING MEETING.

MONDAY, AUGUST 4, 11 A.M.

IN the absence of Lord Carlingford at the commencement of the meeting, the chair was temporarily occupied by the Right Hon. A. J. Mundella, M.P., Vice-President of the Council.

In introducing the business of the morning,

Mr. MUNDELLA said :—Your Excellencies, my Lords, Ladies, and Gentlemen, in the unavoidable absence of my noble friend the Lord President of the Council I have undertaken to preside at the opening of the Conference. I shall not be so rash at this stage of the proceedings as to commit myself, or the department with which I am connected to any opinions whatever. I have no doubt that during the present week we shall learn very much which will be of great public advantage, and of great advantage to the education of our country. I shall confine myself now to calling upon our worthy President, Lord Reay, to open the Conference.

Lord REAY said :—

The building in which we are assembled marks a new departure in English education. Like most good things

in England it is the splendid result of local munificence, of local effort to satisfy a want long felt, at last acknowledged. The *genius loci* will, I hope, impart itself to the Conference, and it too will, I trust, show us new channels of enterprise, and give to our thoughts on many subjects a new starting point. We are not here to codify a system of education. We are aware that toleration of opposite views is the first result of a liberal education—that nothing could damage education more than fanatical adhesion to preconceived notions. In England hitherto we have been hospitable to every possible method of education, and we do not intend to ostracise any. The Standard School, which all other schools are forced to follow, is a despotic institution which will not meet with favour in England. I crave your indulgence for a few remarks on some of the burning questions of the day. If science is a constant inquiry into the causes and probable effects of the phenomena by which we are surrounded, it follows that we can never allow the process of inquiry to remain dormant. Constant observation of the various forces which are operating is the main element of education. The development of the powers of observation to satisfy an ever-expanding curiosity is at the root of every system of rational education.

The Sphere of Primary Education.

How to observe and what to observe, in the past and in the present, is the ever-recurring function of education through life. Apply the test to the humblest and to the most exalted professions, you will see that the test does not fail. The agricultural labourer, whose work is of the most interesting description, will be efficient or inefficient exactly in proportion as his faculty of observation has been developed. Nature will teach him something every day of his life, if he has been taught how to watch her workings. It is the same for the astronomer: observation is to him the first necessity. In primary education this truth is more and more recognised, and drawing as well as elementary science

and manual work are being put in their proper places. Belgium is moving vigorously in that direction, following, with reference to manual work, Sweden, where the slöjd, or school of domestic industry, may well claim our attention. Two French Ministers of Education, M. Bardoux and the present Premier, M. Ferry, have given their verdict in favour of the extreme importance of drawing. Sweden also contributes to gymnastics that efficiency of training which—as we are so near to hygienics—I need only indicate with a word. The monopoly of the three R's is doomed, and the enthronement beside them of three D's—drawing, drill, and adroitness—approaching. The primary school must not degenerate into a mere workshop. I do not agree with the Procureur-Général de la Chalotais when he complained of the subversive influence of the Jesuits in teaching children to read and write, who ought only to learn how to handle a hammer or a plane. In pleading for the substitution of rational for mechanical methods, I simply desire to rouse those inquisitive tendencies, which in many cases now are deadened: to make the primary school, not the early grave of individuality, but an attractive spot where the productive use of leisure as well as of the hours devoted to work, coupled with the surroundings of prints and flowers, shall give pleasure to the boys and girls who frequent it.

Value of Agricultural Education.

I need not say how important the invaluable report and recommendations of the Royal Commissioners on Technical Instruction are, and none more so than those bearing on agricultural education, to the effect that "in rural schools instruction in the principles and facts of agriculture, after suitable introductory object lessons, shall be made obligatory in the upper standards"—as it is in Ireland—and "that encouragement should be given, by way of grants, to practical work on plots of land attached to such schools." Agricultural education is considered in certain quarters as

a luxury. I may be allowed to use the strongest expressions to deprecate this extraordinary error. At the present moment the future of rural society is a great problem. The bearings of this problem on society in general are obvious. The land question is in all countries one of paramount importance. *Ad nauseam* we are told that land is a limited quantity, and then almost immediately afterwards we are told that for that reason it should be made common property. The deduction to be drawn from that palpable axiom seems to me an entirely different one, namely this—that we should throw into the management of land the highest possible skill. Gold is a rare commodity, therefore you only give it to a skilled artisan ; on the other hand, the management of the soil, which raises a host of scientific and economic considerations of the utmost delicacy, is left in most cases to those who have not had any training in science or in the technicalities of agriculture. Farming is a pursuit which requires in these days the utmost skill and versatility. The fact is admitted not by mere theorists, but by the most practical agriculturists in every country. We used to hear a great deal of the practical soldier as opposed to the academic soldier, but since recent wars we hear much less of the former, though I do not wish to depreciate his merits. So it is in the agricultural world. These years of depression have been the death-knell of unskilled farming. The notion of farming, of estate management, not requiring previous technical education, is quite as absurd as entrusting H.M.'s ironclad Inflexible, with its complex machinery, a floating laboratory, not to a scientific officer like Captain Fisher, but to the skipper of a Yarmouth fishing smack. I shall not inflict any statistics to-day on you ; but I should like to know what has been the loss resulting from unskilled agriculture? Transform agriculture into a skilled pursuit, multiply men like Lord Walsingham, and we shall probably hear as little of the wish to reduce the surface of the globe to encampments of squatters, as we now hear of a division of commercial navies, though these also are a limited quantity, which

cannot be expanded indefinitely. Not to be misunderstood, I should like to point out that in this case also science will not rob the people of enjoyment, but add to it. My friend Sir John Lubbock has insisted on forestry being taught. How much of enjoyment has been lost by the wanton destruction of forests and the neglect of planting forests? The preservation of Epping Forest answers this question. By how much could the consumption of milk be increased if dairy farming were conducted on scientific principles? How are you to feed humanity in the next century if population continues to increase at its present ratio? How are you to stem the tide of immigration to the large towns? Only by giving to the rural districts that sense of pride, which their inhabitants can only have if they realise that they are members of a body which commands universal respect, like the Army and the Navy, whose scientific branches have in recent years made gigantic progress. You see that in this respect, as in most other respects, I do not agree with Voltaire when he wrote to De la Chalotais, "I am grateful that you disapprove of learning for agriculturists. I, who am an agriculturist myself, do not want savants for that purpose." *We* do want savants, and I am happy to say that the University of Edinburgh has recognised this; but, in addition we want trained agents, trained farmers, and trained farm labourers just as much as we want trained merchants, trained manufacturers, trained mechanics, trained foremen, trained artisans. Through technical education we must recover the ground lost since the Middle Ages, when in Italy, at all events, to be an artisan was to be an artist. There is some injustice in the favourable view we entertain of our enlightened century, as compared with the dark times which bequeathed to us those splendid monuments of art.

The Sphere of Secondary Education.

The great controversy about the relative merits of the gymnasium and of the realschule has not yet invaded

England. Is it because the classical school enjoys a sense of perfect security, or is it because the Technical Instruction Commissioners have only sounded the first note of alarm?—one thing is certain—we shall have to make up our minds for a large increase of schools with a modern curriculum. What is called the perfect school, which embraces every branch of learning, would certainly never meet with favour in England. It would only lead to ancient and modern languages and science being all equally badly digested by the pupils. Such programmes, if approved by the Whitehall Inspectors, would ere long attract the notice of sanitary Inspectors of the Local Government Board. The only chance of anything being taught thoroughly would be, not the efficiency of all, but the inefficiency of some of the teachers. This was illustrated in a German gymnasium, where the director, on being asked how it was that the Latin of his pupils was so satisfactory, replied, "Oh, because we are fortunate enough to have a very inefficient mathematical master." The exclusion of the study of the ancient languages does not mean the exclusion of the study of the institutions of ancient Rome and Greece. It is a fair question whether a student of German, reading German authors on the literature and institutions of Greece and Rome, will not have a deeper insight into their character than the youth who has been victimised to write hexameters. Will Mr. Warre make the study of German compulsory for all Etonians? Will he put a stop to classics in all cases where the mind shows no capacity for them? I do not go so far as Herbert Spencer, who quarrels with the sculptor of the Discobolus, because, unfamiliar with the theory of equilibrium, the artist placed the figure in a position which would cause the man pitching the quoit to "fall forward the moment the quoit is delivered." I do not believe that the Discobolus will cease to be admired by those who are versed in the laws of equilibrium; by German staff-officers for instance, because Moltke approves of a scientific education in preference to a classical training. There is a great deal of truth in Thiers' apprehen-

sion when he said—"At a time when religious convictions are weakened, if the knowledge of antiquity also dwindled, we should become a society without moral links with the past, exclusively acquainted and busy with the present—a society ignorant, lowered, only fit for mechanical industries." I also agree with M. Saint Marc de Girardin, "that if we were to clear out of our brain all the ideas we have received from the Greeks and Romans, we should be frightened how little remained." But the spectacle of Claude Bernard, the founder of French physiology, working in a cellar of the Collège de France, and shortening his life by the martyrdom inflicted on him through the absence of a laboratory, is quite as potent an educational factor as the philological research which culminates in the restoration of the original text. A lawyer ignorant of Roman law, a theologian ignorant of the Greek Testament, an artist without classical training, seem to me imperfectly educated; but then an architect, an engineer, a doctor, not trained in science are equally unsound. The whole contention is simply one of possibilities. The hatter of a great statesman lately told him that his head had grown larger within the last ten years. It is said that a French physiologist has come to the conclusion that in generations who from father to son have constantly used their brain, an enlargement of the skull has taken place, which in ten centuries would make a difference of six millimetres. The power of expansion is therefore limited, and we must have bifurcation, and if we give a variety of instruction in both schools by the teaching in both of modern languages, which cannot be neglected, we shall find a common ground for those who take up science and those who take up classics. Not a mere smattering of "Allgemeine Bildung" is the aim of English education; it has always striven after thoroughness—"non multa sed multum." The bifurcation is rendered necessary by the very fact that a combination of both curricula would damage them both. If we are to give secondary education of any value to a large part of the population, this is the only way of doing it, because they

cannot afford to waste time on classics. The complaint is as old as Montaigne, who in his day bewailed the fact that the mental growth of a great number of people was stunted by the inordinate desire to learn overmuch. By education you do not want to enervate, but to strengthen the individual will, and to give to the individual character a manly independence. The highest culture undoubtedly is found among the representatives of the classical school. It would be sheer ingratitude not to recognise that to it we owe writers like Newman, theologians like Lightfoot, orators like Gladstone, statesmen like Goschen, poets like Browning, artists like Alma Tadema, historians like Lecky, metaphysicians like Flint, essayists like Lowell, biographers like Trevelyan, critics like John Morley, educationists like the late Mark Pattison, whose recent sad death we deplore, and to whose memory we now pay a first tribute of respect, not to mention names equally illustrious among the living and the dead, here and abroad. The number of authors, poets, orators and artists must inevitably be limited, as Goëthe tells us—

"Wer in der Welt Geschichte lebt,
Wer in die Zeiten schaut und strebt,
Nur der ist Werth zu sprechen und zu dichten."

The study of the ancient world is undoubtedly one capable of attracting the noblest instincts; but what are you to say to those who, having attained a mere smattering of Greek and Latin, either turn their backs on all further self-education or swell that literary proletariat which — good for nothing—declaims hollow theories or panders to bad taste? The great bulk of the nation is not intended to speak and to write, but to work, and must therefore be trained to satisfy the requirements, not of ancient Rome and of ancient Athens, but of society as at present constituted, with its extraordinary development of international relations. It is the realschule which makes it possible for young Germans to write letters in three or four languages besides their own, and to fight their way into the offices of our merchants at

Manchester and at Bombay. Michel Chevalier said of the École Centrale des Arts et Manufactures—"If it were not in existence, it would be necessary to create it as the complement of the treaties of commerce." We have too long neglected that side of our educational system, forgetting that such schools are much more likely to benefit the greater number of those who frequent them than classical schools which only really benefit a select few.

Autonomy in Education.

But if you have admitted that one type of secondary school is as impossible as one type of primary school or one type of university, you have recognised another great truth—namely, that you cannot centralise your education. The needs of nations, of localities, of individuals, are so varied that it is impossible to draw up one code. It will be unnecessary for me to remind this audience of the absolute failure to assimilate English, Scottish, and Irish education, though perhaps not everybody here would be prepared to consider this a satisfactory phenomenon. But let us ask our French friends whether they are satisfied with a centralised machinery. What does Pasteur say? How does he answer the question, "Pourquoi la France n'a pas trouvé d'hommes supérieurs au moment du péril?" As follows:—"While Germany was multiplying its universities, and establishing among them a most salutary emulation; while it was surrounding their masters and doctors with honour and consideration; while it was creating vast laboratories furnished with the best instruments, France, enervated by revolutions, always occupied with sterile aims at a better form of government, gave only a heedless attention to its establishments of higher education." The late eminent Dumas, one of the eight inspectors of superior instruction in the university, speaks not less positively—"If the causes of our marasmus appear complex and manifold, they are still reducible to one principle—administrative centralisation, which, applied to the university, has enervated

superior instruction." A Professor in the Faculty of Medicine, Lorraine, boldly says—"We demand the destruction of the University of France, and the creation of separate universities." The Germans do not centralise; there is no "Reichs Ministerium" for education at Berlin. Ask Döllinger whether he would sanction the destruction of autonomy in matters of education in the various States of Germany. My friend, Sir Lyon Playfair, assures us—"A free country like England will not tolerate State unity in education, any more than it has tolerated it in any region of her politics." Notwithstanding this gratifying assertion, he must allow me to look with considerable suspicion upon his conception of a Minister of Education. I am told that Herbert Spencer, in genial banter, on one occasion maintained the opinion that we might, perhaps, be all the better for absence of education, leaving it to the friction of life to develop individual powers. This could, of course, not be taken seriously; but it would be more human than the verdict of our poet Gascoigne, that "A boy is better unborn than untaught." Adventurous and enterprising men, though uneducated, have done great things. The tyranny which would compel the human race to be educated on identical lines seems to me to have nothing human in it at all; and I am quite certain of this, that our Empire can only be maintained if we give free scope to the greatest variety of methods of education. The French Canadian, the settler in New Zealand, the Parsee in Bombay, the ryot in the Deccan, the Scottish bursar at Aberdeen, the Connemara peasant, are all entitled to have that system of education which will develop on national and historic lines the strongest features of their race, though none of them may be able to compete for the Hertford scholarship. If every nation were to give full play to the variety of talents which it contains, instead of trying to press their schools into one mould, we should hear less complaints of want of originality.

The Sphere of the Universities.

Are the universities to take cognisance of the technical part of education, or are they to take no part in this great movement? If the universities train our statesmen, our doctors, our lawyers, our clergy, our literary and our scientific men, I can see no reason why they should not also give us the highest engineering, artistic, financial, commercial, and agricultural skill. Why should the great Institute which gives us its hospitality to-day not form part of the University of London of the future? The idea of a university is not to grind a certain number of individuals in a certain limited number of studies, and then to invite them to write down answers to printed questions. The idea of a university is to supply the highest wants of a nation in every direction, not in one. "Discite vitæ non scolæ." If the best scientific teaching is to be represented at the universities, and if technical education in its most advanced stage is to obtain this teaching, why not at the university? It is a gratifying fact to me, as Rector of the St. Andrew's University, to be able to recall the fact that in the organisation of that university, after the Reformation, one of the three colleges was to devote itself to teaching dialectics, mathematics, including arithmetic and geometry, cosmography, astronomy, and natural philosophy. After attending this course for three years and passing a successful examination, the student "shall be laureat and graduate in philosophy." I do not forget that a university is not merely a place for professional training, but for the highest research. I prefer the German system, where both objects are united, to the system which has obtained in France, where the Collége de France and l'Institut Pratique des Hautes Études overshadow all the universities, from which they are separated, though we must recollect that the two professional schools, l'École Normale and l'École Polytechnique, have given to France its most eminent "savants." This question is a question of division of labour. Huxley and Ray Lankester will not grudge lec-

turing to those who are capable of benefiting by their teaching. The important element in university training is, that those who attend the lectures should be quite fit, by previous training, to follow the lectures—that the lectures should be given by the most competent men, and should have a stimulating influence on those who attend them. Any pupil of Jowett's will agree to this proposition. You will, of course, have to graduate your lectures for those who intend to give up their lives to study, and for those who wish to enter on a profession; but the best teaching will be at the disposal as well of the one class as of the other. The object is not to burden the men who are the highest representatives of learning; but to increase the number of those who come under their influence—to make the influence of the university felt in a wide circle. That is, I know, the object of the best men at our universities; and I may, perhaps, couple the name of Professor Stuart with these efforts. What you want is to reduce the necessity of artificial intermittent examinations by increasing that unremitting self-examination which is the natural result of constant attendance at the best teaching. An examination can never become a corrective of indifferent teaching, and I would rather not answer the question whether it is an unerring test of the results of good teaching. I can only say that I was glad lately to be told confidentially by one of the most eminent men engaged in the higher education of France, that he held very heretical views on the subject of examinations. The task of the universities is to collect as great a number of eminent men as they can find. The triple task of these men will be, firstly, to fill every profession and every walk of life with men who will be able to grapple with the problems they have to face, because they have been taught what is implied by scientific method; secondly, also to reproduce, as it were, themselves, by training new leaders of future generations; and thirdly, to add to our intellectual capital by research. I am opposed to the professors at universities degenerating into what M. Renan has stigmatised as "amuseurs publics," who give

entertaining and brilliant lectures. The class-room of a professor should only be filled with the flower of the youth of a country; but that flower should be gathered from all classes of the community. The luxury of idleness alone ought not to be tolerated at a university; every other luxury, in the way of bursaries and scholarships, should be granted; every variety of excellence should at once be absorbed. I say this in London, where we have this variety, but where we keenly feel the want of the "Alma Mater" which will gather these wandering orphan lecturers. Let us hope that the next Conference will be welcomed by the Chancellor of a teaching university for London.

Science and Democracy.

I do not wish the universities to stand in solitary grandeur, remote from the life of the people. An eminent radical statesman said to a professor who was putting in a good word for the existence of other agencies than the mere impulse of the multitude—"It is the like of you who are worse than Peers." The remark was significant. The French aristocracy is destroyed. The French University retains its ancient lustre. Science is never sensational, but from its very nature progressive, because always inventive, constructive, and using, not wasting, the materials of the past, to build the future on a solid foundation. A cynical plutocracy and an uneducated democracy both are inclined to be wasteful and destructive; both are inclined to set up shams. Science cannot set up shams, but invariably destroys them. The patient, the cautious attitude of true science, in dealing with obstacles to progress, will not always suit the impatient and often generous impulses of democracy. One of the great dangers of the future is a collision between these two forces. How can we prevent it? Only by giving the democracy confidence in the aristocracy of science—an aristocracy which is self-made, and can only perish with science itself. It is an independent aristocracy, because the moment science becomes servile it loses its *raison*

d'être. Its labours are the main cause of the prosperity which is enjoyed by the people, and of the greater prosperity which is in store for them if they listen to the voice of wisdom. The notion of equal comforts for all—*le régime des appétits*—has nothing but a ruinous collapse of civilisation to commend it. The antidote to these poisonous precepts is to be found in the extension of university teaching. Its administration should be on a large scale. Emerson was not far wrong when he wrote—"We shall one day learn to supersede politics by education." Those who are painfully aware, by the fulness of their knowledge, of the greatness of their ignorance, will have to inculcate that greatest of all lessons to those whose ignorance draws pictures of a future paradise in which *a priori* theories will secure universal happiness. In such an earthly paradise, I am afraid, the tree of knowledge would be sought in vain. The doctrine of human fallibility is not impugned by scientific progress, but rather the reverse, when we think of the darkness from which we are only just emerging.

The Future Work of Education.

Faraday gave expression to this conviction when he said—"Society is not only ignorant as respects education of the judgment, but it is also ignorant of its ignorance." Such a complex machinery as modern society, with its manifold wants, makes the organisation of education more complex every day. Not by centralisation, not by programmes, not by circulars, not by examination papers, not even by lavish expenditure alone will success be attained. What is wanted is that public spirit, that strong conviction in every man, woman, and child that education is a privilege; that the more education a man has the more he is to be respected. Does it exist? Yes; you will find it among the scattered populations of the Highland glens of Scotland and of Switzerland, along the canals of the Netherlands, in the forests of America and of Germany. It is a precious heritage. To increase it is our object. The great Chancellor

of the German Empire once compared the struggle for gold between the central banks of Europe to a struggle among individuals for a blanket of insufficient size. The same process is at present going on in the various States of Europe with reference to education. We are all struggling for golden wisdom, with this great difference, that the gold we bring to the surface at once becomes the property of all. The discoveries of the biological marine station at Naples can be tested at St. Andrews, and the scientific work done at Strasburg can be utilised in Edinburgh. Science cannot render men equal. The princes of science constitute a separate order, and when we enjoy the pleasure of contemplating or reading the works of genius, we cannot help admitting our own inferiority. When a nation ceases to reverence its great men that nation is on the decline. Inequality is a law of nature ; but so is liberty, and liberty is incompatible with equality. But if education alone makes liberty possible, by learning its uses and preventing its abuses, education also teaches us to be generous. The best educated man will also have the widest sympathies. The best educated people will also be the people which cements peace and goodwill among nations.

Lord Carlingford arrived during the delivery of the foregoing address, and took the chair.

Mr. JAMES RUSSELL LOWELL, the American Minister: My Lords, your Excellencies, Ladies and Gentlemen, Lord Reay in the excellent address, which we have just heard, has alluded to the complexity of modern society. In looking over the programme I have been struck also with the great complexity of modern education. I do not find, however, among the numerous branches, which are to be discussed here, that a chair was ever established for the purpose of enabling one, when suddenly called upon to speak, as I have been this morning without a previous opportunity, if I may use a military term, of "mobilising"

one's ideas, to say something pertinent or worth hearing. I, like all the rest of you, have been very much interested in the address which we have just heard. One or two points in it particularly interested me. The first of them was what Lord Reay said about the study of German. I have always been in the habit of advising young men that, as the use of learning was to furnish a key, so they would find that German was a key that opened more doors, and doors to a greater variety of knowledge, than any other acquirement, at least that I knew. What Lord Reay said of Greek and Latin interested me also, because my own university has just taken the initiative in affording a much larger liberty of choice to its students. A young man at Harvard now may attain honours in the modern languages, as well as in the ancient. It has always seemed to me, though my prejudice and the prejudices of men of my age are apt to be rather in the other direction, that the question between the ancient languages and science was rather a question of words, as most questions of the kind are. It is simply a question as to which kind of knowledge is most advantageous, whether the kind of knowledge that enables one to appreciate the advantages of style, and to attain to, or at any rate to feel and be inspired with, a strong desire after perfection of form, is the most important thing in education; and that again would bring us back to the question, whether literature be the most important element in civilization. Perhaps I should say that it was, but, at the same time, I should certainly be willing to admit that there were other elements, if not of equal, certainly of first-rate importance. This complexity in education also reminds me that once it was possible for a man to be an encyclopedic scholar. Six hundred years ago Dante, I suspect—indeed, I may say that I more than suspect—was master of all the knowledge of his time. Nobody nowadays would be so mad as to venture on attempting to make himself so; and yet Dante, who is cited by a very eminent scholar and literary man as one of his examples of perfection of form, was absolutely ignorant

of Greek. I suppose that the aim of education nowadays is to give everybody a certain start, to give him, if possible, some hunger after knowledge. A friend of mine, an artist, had a school for drawing. I myself have been a teacher as you know, and I had been greatly discouraged in certain ways as a teacher. I asked my friend one day how many of his scholars out of a hundred he could teach to draw. He at once answered "All of them." I smiled. I said, "Yes, I know, but you are talking to *me*. How many can you teach to draw?" "Well," he said, "fifty." "I know that you can teach fifty to draw, but how many can you teach to draw well?" "Well, perhaps, twenty." "But how many can you teach to draw what *you* would call well?" "Oh, well, in two or three years, perhaps one!" I confess that that was very consoling to me; and I think that perhaps the weakness of some of the schemes of modern education is, not that they attempt too much, but that they hope to be able to teach everybody too much. If we establish such a university as that which Lord Reay mentioned, where there is a chance of studying everything, I think that we may safely leave the question between science and the classics to the instincts of the student himself. The object is, as I say, to give the students a hunger for learning; and as people have their favourite dishes—as there are certain whimsicalities of appetite, I take it that there will also be the same in the appetite for knowledge. I am reminded of that old story of the British admiral who, in the midst of a sea-fight, was nudged by one of his officers, who was something of a classical scholar, or thought himself so, and said, "Does not this remind you of the combats of the Greeks and Trojans?" "Confound the Greeks and Trojans!" said the Admiral—he used a shorter word, a word of one syllable—"The question for us is to beat the French." After the French were beaten, the Admiral sent for the officer, and said, "Now I should like to hear what you have to say about the Greeks and Trojans." And I sometimes feel like the Admiral when the question is discussed. I think that we may leave that, as I say, till after

we have achieved the principal object, which is to establish such a university as that which Lord Reay described. It is a particular pleasure to me to have been called upon, even in this unexpected way, to move a vote of thanks to Lord Reay. There is, however, no necessity for moving such a vote, for I have been sitting opposite to the faces of his audience, and I know that he has been making a discourse which has been interesting, as he always does, and particularly acceptable. I have had the pleasure of hearing him before, and therefore I had no apprehension that what he said would not be excellent in substance and admirable in form. I, therefore, have great pleasure in moving a vote of thanks to Lord Reay for the very admirable, solid, and instructive discourse to which we have just listened.

Mr. MUNDELLA: My Lords, Ladies, and Gentlemen, I shall confine myself strictly—and I think that you will agree that I shall be wise in doing so—to seconding the vote of thanks to Lord Reay for his able and suggestive—I had almost said exhaustive—address. To-day, and indeed during this week, whatever time the Lord President and myself can devote to this Conference I am sure we shall be here rather as students and learners than as teachers or commentators upon the various papers which will be submitted to us ; but we must all feel grateful to Lord Reay for the very admirable address which he has delivered to us—an address which seems to me to cover the whole of the programme which we have before us for the week. There is scarcely a subject in it which has not been touched upon by his lordship, except, perhaps, that Miss Fanny Calder's subject of cookery has been omitted. I do not venture to give my assent by any means to all that has fallen from his lordship ; indeed, there are some points from which I must candidly say I strongly dissent ; but, on the whole, he has been kindling that noble sentiment which is so much lacking in this country, and which, as is truly said, is to be found more in Scotland and in Germany than amongst us—a desire for a public spirit in favour of the dissemination of education amongst the people, and a determination that education

shall be imparted to every member of the community in order to fit him for the proper discharge of the duties of citizens. His Excellency, the American Minister, has supplemented in his own admirable fashion the excellent address of Lord Reay ; and I hope that he will allow me to dissent from him for once. It is quite possible that of every hundred children taught drawing only one is taught to draw well. Nevertheless, it is not the less desirable that all should be taught. His Excellency tells me that we are perfectly agreed. I am sure that we should agree on that matter. Only one of the hundred, perhaps, would become a real artist, but the humblest workman might be able, by means of the drawing which had been taught him, to express with a pencil his ideas of the work on which he is engaged ; and if you give him that faculty you have made him altogether a much more useful, able and competent man than he would be if he had never been taught drawing. My lord, I think that I shall be wise in now contenting myself with expressing my obligations to the noble lord who has delivered to us such an excellent address—an address in every way worthy of this important Conference, and an address which no man is more qualified to deliver than Lord Reay at an International Conference. We may say of him that he is really an international man. He has done us great honour and great service in the address which he has delivered to us, and we ought to thank him not only for that admirable address, but also for the great care and great labour which he has devoted to this Conference, and in bringing together to the great advantage of the English people so many worthy representatives of education from all parts of the world. I have much pleasure in seconding the vote of thanks.

The motion was carried by acclamation.

Lord REAY, in reply, said that he certainly had not attempted by any means to cover the whole field of the Conference. As he saw many ladies present he might say that he had, perhaps, not been quite as complimentary to the ladies as he might have been, for he had not spoken of

the education of women at all. As the subject would be dealt with by the ladies themselves, he thought it more prudent to leave it alone. Another reason why he had not touched upon it was that it was impossible to improve upon what had been said in the report published on the subject by a very eminent French authority, M. Gréard. That report was one which he hoped would be carefully read by all the members of the Conference to whom it was not already known. He had to express his sincere thanks to the Foreign Office and to the Education Department for their co-operation in the organisation of the Conference, and he might especially mention his friend Mr. Fitch. He wished also to thank the representatives of foreign countries for the honour which their Governments had conferred upon the Conference by appointing them to attend its meetings; the presence of these distinguished men would not only enhance the value of the debates, but it would also prove that the cause of education was a powerful cement of cordial feelings among its friends in every part of the world.

M. BUISSON, Inspector General and Director of Primary Education in France, speaking in French, moved a vote of thanks to the noble Chairman, the Lord President of the Committee of the Council on Education. In the name of the *Ministre de l'Instruction Publique*, and on behalf of the French and other foreign delegates who had been invited to take part in it, he begged to be permitted to express their profound sympathy with the objects of that reunion. They were met to communicate to and receive information from each other, and it was impossible that any of them could find themselves in the presence of that fine Exhibition without gaining experiences of a useful and agreeable character. They were right first to thank Lord Reay for the great interest he had taken in organising the Conference, and for the admirable address that he had just given them, but they must also thank the noble president and the other ministers for their efforts to make successful that first International Congress on Education held in England. This

Conference is certainly entitled to be called International, and the high patronage with which it has been favoured is fully justified. Let us glance at the programme of the Conference. Why, this programme is in itself a manifesto. For by uniting together more closely than has, perhaps, ever been attempted in an assembly of this kind, all the degrees and branches of education (ordinary, secondary, and higher education, classical and professional education, both for men and women, and scientific and artistic education), and thus bringing under our notice the question in all its bearings, this programme recognises that education is one, that nothing human is foreign to it, and that elementary education can no more do without high culture, whose principle it is to adopt, than high culture can remain in a state of disdainful isolation. This programme also sets forth that the aim of this assembly is not to discover some minor improvements, or some new educational process, but to submit to our consideration this question:—What must and can we do to give to every man a complete education; an education that will make of him not an artisan or an artist, a merchant, a scientist or a literary man, but something more—a man? It is because the Exhibition and the Conference possess this far-reaching and human character, and have been given such an encyclopedic scope, that they fully deserve the high patronage with which they have been favoured. For the advantages they had thus been generously invited to enjoy they had done well to tender their thanks to the Educational Committee of organisation; but they ought also to express their gratitude to Lord Carlingford not only for having taken the chair and so well conducted the proceedings of the opening sitting, but more especially for having by his presence, together with Mr. Mundella, as heads of the English Education Department, given to the Conference a sort of official consecration which could not but greatly contribute to its success and lasting influence both in this country and abroad.

M. COUVREUR, late deputy-chairman of the Belgian

House of Representatives, seconded the additional vote of thanks proposed by the last speaker. He said that nobody would be astonished at the great interest in the Conference which had been taken by Lord Carlingford, the Lord President of the Council. A few weeks ago they had an opportunity of reading a very interesting speech which his lordship delivered at a dinner of the Cobden Club, in which he showed himself a staunch free trader, and they could understand that a free trader would be an advanced advocate of education. Free trade, or the suppression of all the artificial privileges of a nation led to a wise and prudent democracy, which tended to interest all classes of society in the subject of government, and no wise and prudent democracy was possible without a very large amount of education in the country. Poor countries could only become wealthy countries by education; and wealthy countries like England could only keep up their wealth by education. It was a great and good thing for a country when a general desire for education moved all its citizens. In England the times were gone by when noblemen were proud of their ignorance as a privilege, and when it was a crime to teach children. The times were also gone by for such a schoolmaster as that of which Dickens spoke. They now found people gathered from all countries in order to discuss the question of education, and members of the Government presiding over their assemblies. Great gratitude was due to those gentlemen, not only for being present, but for having given a promise to sit down and become, not teachers but scholars, in the different discussions which were to take place during the week. He begged the assembly to join in the expression of thanks to the two members of the Government who had been presiding that morning.

The motion having been carried,

Lord CARLINGFORD replied, as follows: Your Excellencies, my Lords, Ladies and Gentlemen, thanking you very heartily on behalf of the Education Department, and on my own behalf for the vote of thanks which you have

just accepted, and apologizing for my unpunctuality just now, which happened to be unavoidable, I am very glad to say one or two words upon the occasion of the opening of the International Conference on Education. I was struck with the ingenuity of M. Couvreur just now in connecting education with free trade, in referring to a certain celebration of the great principle of free trade in which we took part together, not long ago. But I am also struck with the ingenuity and boldness with which the promoters of this Conference have hung it upon the great show—I was going to call it—the great popular Exhibition next door. Although I and my right honourable friend near me are here to-day in our official capacities, undoubtedly, yet I need hardly say that neither the Health Exhibition, nor this Conference are, in any sense, the creation of Government, or affairs of State. They are purely the outcome of private enterprise, and of a vast amount of private energy and ability, which has made this Exhibition the success which we see. Its primary object I need not say, is health in the ordinary and bodily sense of the word; but it might have adopted very well for its motto the familiar phrase "*mens sana in corpore sano;*" and therefore it has managed to include—and, above all, the promoters of this Conference have boldly included—all those means of mental health, which are to be derived from education; and so the Exhibition comprises many interesting exhibits consisting of appliances and illustrations of teaching in all its branches. It is in that connection that I and my right honourable friend representing the Education Department are here. It is in that connection that I have the honour and pleasure for a moment of filling this chair, and of expressing, on behalf of the Education Department, our warm interest in this, I believe, the first International Conference on Education that has ever taken place, at all events in this country; and, specially, I feel that I am in this chair for the purpose of offering a hearty welcome to all those foreign delegates who have honoured us by their attendance here to-day, and who are about to contribute to the Conference the great advantage of their

knowledge and experience. I am happy to say that a considerable number of the countries of Europe are represented here. Our nearest neighbours, France and Belgium, are the most amply represented, but we also have representatives from Austria and Russia, and from some parts of Germany, although Germany is not largely nor officially represented. There are also representatives from Denmark and the Netherlands, from Spain and Switzerland, from Brazil, and from Japan. I may say that that interesting country Japan, which, I believe, as the last of its achievements, has created a Science and Art Department, and a "South Kensington" of its own, has just sent a most excellent and interesting collection of educational and technical appliances to the Exhibition. Ladies and Gentlemen, I am not going to detain you by a speech. You have hard, I hope not heavy, work before you. The art of education is long and manifold, and the life of this Conference will be a life of only a week; and I confess, when I take up this programme, its dimensions are formidable. However, with good will and division of labour, I have no doubt that you, or some of you, will get through it all. Education is a great work. It requires, in the first place, zeal, self-sacrifice, and the enthusiasm of humanity, as its motive power. But it requires also, careful experiment, patient experience, and the combination of enlightened theory. I am glad to think that on this occasion the educationists of Great Britain will not be left alone. They will not be left to compare notes as to their experience among themselves; they will have the immense advantage of the presence of a considerable number of their foreign brethren in the science, art, and profession of teaching, whom again I welcome here in the name of the Education Department of this country, and in the name of the educationists of Great Britain and Ireland. I will not detain you longer. There is a large bill of fare, as I have said, for the coming week. It will be hard if every one does not find a dish to his liking, and, in parting from you to-day, I only hope that "good digestion may wait on appetite."

SECTION A.

CONDITIONS OF HEALTHY EDUCATION.

MONDAY, AUGUST 4, 2 P.M.

Chairman: The Rev. T. GRAHAM, D.D.

STRUCTURE, FITTING, AND EQUIPMENT OF GIRLS' SCHOOLS.

By the Rev. Canon HOLLAND.

THE invitation which I have received from the Executive Council of the Health Exhibition to read a paper on the "Structure, Fitting, and Equipment of Girls' Schools," and my apology for acceptance of that invitation, rest upon the same grounds, namely, the special interest which for many years I have taken, not only in schools but in school-houses. I have, indeed, been closely concerned with the building of four National Schools and two High Schools; and I have twice crossed the Atlantic for the very purpose of acquainting myself with the method of education in the United States and in Canada, as well as with the manner of their school buildings.

But since in America whatever money may be needed for a grand school-house is immediately forthcoming—as would seem, indeed, to be always the case where education is rate-supported—and since in the High School Com-

pany, of which I am chairman, we have aimed at excellence rather than economy in our buildings, my experience leads me to describe what a school-house and its equipment ought to be, rather than how much can be effected with limited means.

And here I would say that, if a school be contemplated which will not only pay its way but earn a fair profit, it seems to me the wisest policy to build at once, and pay off a debt, rather than (as the good folk at Manchester did) put up with indifferent lodgings for many years, and meanwhile lay by money to build later on a good school-house. Financially it is the same thing whether your surplus goes to the repayment of a loan or to a sinking fund for a future building. The difference is, that in the first case you have throughout the attraction and the healthfulness of a suitable building, not without anxiety; while in the second you run no risk. The latter way of proceeding is, perhaps, the most honest, but the former is certainly the most profitable. For none can deny that adapted premises are almost always unsatisfactory. Very rarely can private houses be made thoroughly suitable for school purposes, and this for various reasons, but especially because there will be found in them no sufficiently large assembly-room, which is, in my opinion, indispensable to the good working of a High School for girls.

It is needless to tell you that a school-house should be well drained, well ventilated, well lighted, and well warmed. All this goes without saying. Nor am I called upon to determine the best form of draining, or ventilating, or warming, or lighting, because these points concern all buildings alike, and have, doubtless, been the subject of anxious study and ample discussion since the opening of this splendid and important Exhibition. Accordingly I confine myself to a very few remarks upon the last two points.

First, as to warming. Hot air admitted into the class-rooms by openings near the floor, or hot-water pipes along two sides of the room, are better than unapproachable

stoves or elaborate grates. In our schools we have found Boyd's system of warming sufficient and wholesome, and controllable. Only, it is to be borne in mind, that in adopting it, a man must be found to light the furnace betimes, say 5.30 A.M. on a winter morning. As for the lighting, it is more important that the windows should be lofty than large. Let them be continued up to the ceiling. It is said that a very good arrangement of sash-windows is to have the timber of the lower sill of more than the usual depth, so as to rise two or three inches above the lower edge of the sash; then, if the sash-frame has a depth of four inches, the lower sash can be raised two inches without any draught of air entering beneath, while a good stream of air enters between the sashes, and is directed towards the ceiling. A Tobin's tube admits air much in the same way. But in my opinion the best form of window is that which has sashes opening inwards and downwards, and regulated by a small lever and hinged iron rods.

The amount of light must be the largest possible, and its incidence must be carefully considered. For a stooping attitude, and a too close scrutiny of what they read or write, due to an insufficiency of light, tend to produce in children short-sightedness, if not spinal curvature.

I pass to the question of what a school-house ought to be.

A school-house should be built, if possible, upon a site so large as to admit of a spacious assembly-room, and six or more class-rooms, on the same floor. At each corner, and on the longer sides of this assembly-room, should be doors or short passages leading to these six class-rooms, or even groups of class-rooms, holding twenty-five to thirty desks apiece. Thus, at a given moment, and to the sound of march music, the children assembled beforehand in their several class-rooms, can come in from all points simultaneously, and in single file, and so pass to their proper places for morning prayer, or a general address, or the like. I visited a notable training-school in the United States, where I saw 1200 young women pass into their places in

two or three minutes with beautiful precision. The sight was instructive; and I am glad that I took heed to the advice given me to be in good time that morning, so as not to miss it.

Underneath the assembly-room should be placed the lavatories, cloak room, closets, &c.—all these being at the main entrance end—while the rest of the space should be used as a gymnasium.

Upon the upper story of the building may be placed other class-rooms, a lecture-room, a studio, and music-rooms. But, if necessary, a glass house, just large enough to hold a piano and a chair, and erected in the corner of a class-room, makes it quite feasible to have two instruments in one room. In our Baker Street School we have two glass houses in one room, and three pianos, which are all played at the same time without any collision of sound.

All the rooms should have a wooden wainscot between four and five feet high. The colours used throughout the building should be those which are prominent in the landscapes and grateful to the eyes—green, blue, and the autumnal tints, yellow and brown. Red is cheerful, but not good for the eyes.

Change of position is healthful, and lessens brain-pressure, besides giving freshness to lessons. Accordingly, where class-rooms can be made sufficiently large, it is an excellent plan to bring the class out of the desks for lessons which require neither pencil nor pen. This is often the case with younger children, as in reading and geography lessons; and, indeed, if the teacher of even the highest classes wishes her pupils to be thoughtful and retentive, and not merely crammed, she will sometimes forbid notes to be taken while she teaches, and will draw forth in place of thrusting in. If standing, or sitting on forms, could be regularly exchanged with desk-work, the body would be less fatigued, and made less liable to spinal curvature. Each line, then, of desks should have benches exactly in front of it; or, if the class-room be large enough, there should be at one end a group of desks, and at the other three sides of a square

of benches. The mistress, being on a central platform, would look either way, according as the class was in the desks or on the benches.

But I describe here what can be seldom carried out for lack of space. Other means, however, might be adopted for reaching almost the same most desirable result.

The general furniture of a school-room does not call for much remark. At the National Society's Depôt, or at any of the school-furniture shops, may be found the best specimens of the few articles required. It is well to have in every room a good thermometer and, if possible, a trustworthy clock, because the progress as well as the term of time should be known. But while other parts of school-furniture are cheap and easily determined, desks are costly and debatable. I have therefore to speak at some length on the subject of desks; and having paid much attention to the determination of the best kind for a girls' high school, I speak with the more confidence. I may dismiss at once the question of the position of the desks, because there can be no doubt whatever that, where the room admits of it, the lines of desks ought always to be at right angles to the windows, and the light should fall upon the left-hand side of the desk. It may seem a strange view, but I hold it, that desks should be a stimulus to industry, and that the possession of a very good desk should be an object of ambition. Accordingly, I would have fixed seats and cheaper desks for the four lower forms, but chairs and handsome desks for the two upper forms. A girl will long to get up into the class-room with movable chairs, as much for the honour as for the comfort of it. Where the funds will allow of the outlay, there ought to be a separate desk for each pupil over eight years of age. The dual desk has no advantage over a line of desk. The advantages of the single desk are many and great. It is lighter to move for cleaning the floor; it more readily admits of a change in the shape of a class; it lessens the probability of copying and the temptation to do so; it gives an interest and even pride in the desk; it

stimulates tidiness, and fixes untidiness upon the right shoulders. Money spent upon desks is well spent. Other furniture in a school-room is, as I have said, inexpensive, while desks are a costly item, and therefore tempt us to use a harmful economy. But we may be well assured that, whatever be supplied to the younger children, the elder ought to have good and good-looking single desks, with an unattached cane-bottomed chair; and these last, it may be remembered, will save expense and come in usefully at any school-assemblies. And here I may say that all school-chairs not used with desks ought to be fitted with a flap-desk fastened to the back of the chair, so as to make chair-desks.

There are desks which have been constructed with special regard to straight spines and long sight. My experience bids me avoid these. They are so uncomfortable in their rigidity, and they so pinch and distress the poor body, that you will find them hateful to their unwilling occupants. Try all you can to persuade girls to use a natural and healthful posture, but do not force them into it by a desk which they abhor. The days of enforcement by torture are gone by.

Amongst other desks there is not much to choose. The Swedish desks are cheap, and fairly good. A desk which, after careful study, will, I believe, be selected by the Church School Company for all their schools, seems to be as good a desk as can be contrived at a reasonable cost. But I would advocate a still better and more handsome desk for, at any rate, the highest form in a school. Blacken the ledge where the ink-well is, as being most liable to ink-spots.

The desk ought certainly to hold the books and papers in use by the pupil, and be her own desk. Locks are not necessary. If one key opens all, a desk will sometimes be open when it ought to be locked; and if each desk has a different key, a desk will oftentimes be found locked when it ought to be open. One key for all is useless, and a different key for each is tiresome.

But even after the best possible desk has been secured for a school, and in whatever degree the construction of the desks may make for the health and straightness of the body, the benefit will be all undone, and distortion of mind and body will follow, if girls are to sit in those desks for eight and a half hours, as they are required to do in at least one day out of the six in the Oxford Local Examinations. No one lesson ought to last for more than 45 minutes, and thorough change of position ought to be secured after two consecutive lessons. To sit often at the best-shaped desk for more than three hours at a time would chance to harm the best-shaped girl.

To what has now been said concerning the construction and equipment of a school-house, little else of importance could be added. The subject is a simple one, and great pains have been taken, and successfully, to supply our schools with the best and most suitable apparatus. The health of the children depends mainly upon good ventilation and good teaching—and by good teaching, I mean not cramming, but interesting the mind. Much of this overpressure, of which we hear so much, must be laid at the doors of teachers who, eager to obtain a large Government grant, use the poor children as the instruments for so doing, and make scholars by force rather than by skill.*

* Of the School furniture shown in the Health Exhibition I am most pleased with Bennet's folding desk and seat—with a shallow cabinet of minerals from the Nunehead Board School—with the French maps, and the casts of the Écoles Chrétiennes. The French drawing copies—enseignement intuitif de dessin d'imitation—notions préliminaires—seem to me much better than our own. They are exceedingly bold and imitable. The same may be said of the copy books to teach writing. I only saw two models of school buildings, and it did not seem possible to examine them. I coveted for my own schools' use a certain map stand, in which the consecutive and excellent maps are attached to rollers, and raised or lowered by an ordinary winch. The revolving shutters, furnished by Hodkinson & Clarke, seem to me to be mechanically the best possible partition for a school-room ; but in the matter of shutting out sounds they might prove a failure.

SCHOOL FITTINGS.

By the Rev. E. F. M. MacCarthy, M.A.

THE task has been assigned to me of addressing this Conference on the subject of school fittings and equipments. I propose to use this opportunity to enforce, from a fairly long and varied scholastic experience, what seems to be the true place of these in the economy of school.

The ideal school takes for its guiding principles these three: (1) Order without fussiness or waste of time and energy; (2) Discipline without irksomeness or severity; (3) Work under the best physical conditions without harassment or undue pressure; and in the ideal school everything is ordered to give the greatest possible effect to these principles.

Now any one who visits recently-erected schools with a knowledge of the schools of (say) ten years ago cannot fail to be struck with the enormous advance towards this ideal which has been made even in that short time by the thoughtful adaptation of means to ends in the art of school keeping. Most conspicuously he will note the better arrangements for lighting, warming, and ventilating; the vast improvement in desks and apparatus of all kinds; the more extensive use of appliances for objective teaching; the large increase in the number of class-rooms, their airiness, their disposition about the main school-room so as to secure rapid and orderly movements; the greater cheerfulness and look of comfort that pervades the whole building. The enterprise of the firms which are exhibiting in the Albert Hall, and of others, has admirably seconded the growing demand, and made realities of the dreams of educational reformers.

But all controversy has not yet died out on these new questions. On some the consensus is pretty general. That the light must fall on the left of the seated scholars—that the dual desk is better than the old long desk, and the

single desk better than either—that each class should be taught in a separate class-room—these are propositions on which most people are agreed. In defending these from the criticisms of an outstanding minority, time would be less profitably spent than in advocating, as I propose to do, a further forward movement towards "counsels of perfection."

On general grounds there are reasons why the movement of reform should not stop at its present point, especially in connection with the Public Elementary Schools. In the past, these schools have been the schools of a class, and that class the poorest in the community. This is less the case every day, and will continue to be so, since the movement in the direction of a national system of elementary education under popular control and management is not likely to suffer any arrest. Farmers and tradesmen, clerks and commercial travellers, factors and agents, foremen and managers, and even clergymen, are, at this moment, claiming as a right, and valuing as a privilege, the education of rate-supported schools for their children.

Now, to find that the children of parents of widely different social circumstances are being placed side by side in the class-room, cannot but be a matter of the greatest satisfaction to all well-wishers to their country. At the same time, it brings us face to face with a new factor in the management of our schools. For, in this country, owing to the wide inequality of fortune which has existed, there has been in the past much estrangement, much social ostracism. And this state of things has superinduced a wide difference in social manners and amenities. The refinement of manners which distinguishes the English gentleman has not filtered down, as it has in France, permeating section after section till it reaches those whose lives are absorbed in trades and handicrafts.

As a consequence of this peculiarity of English life, there has grown up among those who have been surrounded with greater comfort, or have had larger means, a certain fastidiousness—not wholly unreasonable, and, therefore,

to that extent, entitled to respect—which makes some parents object to have their children mix indiscriminately with those of their neighbours who are less carefully nurtured, less refined in language less sensitive about so-called points of good manners. Now, so far as this feeling arises from real anxiety on the part of parents about the moral welfare of their children and not from social pride or exclusiveness, it ought to be accepted as a condition to be allowed for. The Education Acts are breaking down those old barriers between class and class, and virtually by making the public elementary school the "common school," are hastening the day of mutual respect and good understanding between hitherto estranged or alienated classes of the people. It is the duty, then, of managers of these schools to see to it that, alongside of that removal of old distinctions which is involved in seating children of all classes of society side by side in the same class-rooms, the school arrangements are directed to the removal of those distinctions in moral sensibility or in the minor points of behaviour and manners, which, if not removed, will still act either as a morally contaminating, or a socially centrifugal, force.

This is a matter which also touches nearly the Secondary Schools of the country. For it is evident that as the desire for education grows, and educational endowments are worked more and more to pass promising scholars of the public elementary schools on to the grammar schools, these latter schools will also be affected helpfully or otherwise, by what the former schools do or leave undone, in the direction of inculcating a higher general standard of social refinement. This duty, then, which may be called the *social* duty of schools, raises the importance of school fittings in special directions to a degree which has to be more fully realised.

Lavatories and latrines, though excellent in many schools which have taken advantage of the recent great advances in sanitary engineering, are yet generally either not so good, or are not so efficiently supervised, as they should be in the interests of good manners and morals. Given a material which can be easily written upon by a pencil,

and the absence of a frequent inspection to check the smallest signs of defacement, and you have the most fertile soil for the breeding of coarseness and immorality. However, teachers are largely alive to these dangers.

But if I were asked what part of school economics has been most feebly reached by the hand of the reformer, both from a sanitary and moral point of view, I should unhesitatingly point to the Cloak-rooms. The much greater accommodation of the modern Board School as compared with the old Parochial School gives greater prominence than ever to the question of hygiene and the question of discipline in this direction. Both these are sorely tried, as they never were before, by the massing of children together in large numbers. And if to these considerations you add the newer conception of the duty of a school as regards a high standard of good manners, it will be plain that every one of the three conditions—hygiene, discipline, manners—must be satisfied in the design and arrangements of the ideal cloak-room. A model of a cloak-room, which has been tested by actual experience at King Edward's Grammar School, Five Ways, Birmingham, and found to possess in large measure the attributes which have been insisted upon as essential, has formed one of the Exhibits in Class 36 of this Exhibition (Eastern Central Gallery A., No. 1285). From this experience I would lay down the following principles which should guide the equipment of Cloak-rooms.

The principle of *divide et impera* should obtain throughout.

1. There should be separate (numbered) compartments for each scholar's outdoor clothing, in order to reduce to a minimum the risks of infection; and to prevent the wet coat of one boy from saturating the dry coat, or staining the light coat, of his neighbour.

2. A system of umbrella-drainage communicating with all the compartments should be provided, by which the fetid and discoloured drippings of many (cheap) umbrellas may at once be carried outside the building.

3. Hot water pipes should run under all the compartments so as to subject each separate coat and umbrella to a current of hot air, and at the same time to obtain such a length of piping as will raise the temperature of the room sufficiently to dry wet clothes in the interval between assembly and dismissal.

4. There should be separate cloak-rooms for every 120 to 150 scholars, in different parts of the building, and contiguous to their respective class-rooms, so as to facilitate orderly and rapid assembly and dismissal.

5. The separate umbrella-stand for each scholar, by preventing crowding, will materially assist in the same direction. Something will also be gained by this means by way of checking changes of ownership of umbrellas, which are mostly, if not always, accidental, and result from crushing and hurry.

5. Finally, it is claimed for a plan such as this, that it introduces the scholars to perfect order and system at the very threshold of each day's school work. The separate cloak-room compartment in conjunction with the (almost as essential) separate desk, serves to inculcate and maintain on the school premises that sense of private ownership, which is the basis of so many virtues, and especially of that nice appreciation of the distinction between *meum* and *tuum*, in which schoolboys, by their treatment of the property of each other and of the school, have shown themselves to be sadly lacking.

The following are the detailed dimensions of the cloak-room in use at King Edward's School, Five Ways, Birmingham :—Height of partition, 5 ft. 4 in., width, 1 ft. 2 in., depth, 8 in. ; height of ledge for gaiters, 1 ft. ; height of hook for umbrella, 2 ft. 6 in. ; width of drainage-trough, 3 in. ; length of hot water pipes for 120 compartments, 122 ft. The drainage-troughs are formed (1) on an asphalted floor, by sinking runnels in the asphalte ; (2) on a wooden floor, by means of two wood beads, the space between which is cased with zinc ; the main trough, however, is sunk in the boarding of the floor. In all cases, the main channel communi-

cates with the outside drainage. The lower panels of the door of the cloak-room are fitted in with perforated zinc in order that a current of air may be kept up through the room to carry off the vapour arising from the wet clothes when heated by the hot-water pipes.

The fittings for the three cloak-rooms in use at the above school for the accommodation of 360 boys, cost (exclusive of hot-water piping) the sum of £105.

The next subject which demands our attention is the school-room and the class-room. Those who can recall the school interiors of the "dark ages" before Codes and Education Acts—many of them are extant to this day—will acknowledge the fidelity of one or more of the following sketches of such interiors, examples of which are not taken exclusively from elementary schools :—

1. A large room, with high-stepped floors or galleries down the long sides. The scholars sit with their books on their knees. The only desks on the premises are in an adjacent class-room or two, where writing in copy books and arithmetic—the latter oftener on slate than on paper—are carried on. All other teaching is oral, and "exercises" are done at home.

2. In a school-room of another kind, part of the floor is arranged with desks—long desks, often double, the pupils at a desk sitting face to face, apparently for the more convenient interchange of ideas on work and play. When called up for oral lessons, they are either seated on galleries or ranged, standing on a clear space on the floor, round the master's desk.

3. Again, in a third school, the desks are arranged all round the walls of the room, with their backs against the wall ; and, therefore, the scholars face the wall. The windows being, necessarily, high enough up to prevent scholars seeing out, the light, therefore, reaches them after a number of reflections on the ceiling and opposite wall. The centre of the room is devoted to oral teaching, the classes standing round the teachers.

Now the point to be noticed in all these old-fashioned

types of school organisation is that desks were provided, as a rule, for only a small proportion of the scholars; the number of school subjects in which writing was required was limited, and the several classes went by relays to the desks for this purpose. At other times they either stood on the floor, or sat on stepped *undesked* floors, for oral lessons.

The first change in the arrangements of school furniture was set in motion by the improvement and cheapening of writing materials. The displacement of the quill by the steel pen, of sand by blotting-paper, and finally, the repeal of the Paper Duty in 1861, combined to make writing materials accessible for a vastly larger and more liberal daily use in schools. At first, the greater use of writing in school lessons did not lead to a more liberal supply of school-desks, and for a time boys had to write on the books on their knees, holding an ink-bottle in their left hands—a glass-bottle reversible without spilling, if one indulged in luxuries; otherwise, a penny stone-bottle. Those were the glorious days for ink-spilling and ink-throwing matches, when cuffs and shirt-fronts as well as floors and forms were mosaiced in patterns of ink-patches.

But facts were too strong for the parsimony or conservatism of school managers; and they ultimately had to face the question of a desked seat for every scholar, at every or almost every lesson.

In carrying out this laudable object, an attempt has been made to combine the new and the old in a way which, in the judgment of the writer, has marked defects and disadvantages. A stepped floor is good, and desks are good; but *desks on stepped floors* are not good; and for the following reasons:

1. The stepping is anomalous. Each step (four or five inches high) must be sufficiently *deep* to hold both seat and desk, and therefore must be twenty-eight to thirty inches in depth. Any one who has tried to walk up and down such steps as these will at once realise the extreme awkwardness of the feat. The necessary movements of the teacher

among his scholars when they are doing writing, arithmetic, or the like, and the movements of the pupil when summoned to the teacher's desk are thus considerably impeded ; and, as a matter of fact, the necessity for such unwonted feats of climbing unconsciously disinclines the teacher to circulate freely amongst his scholars at times when his supervision of individual work actually in progress would be educationally desirable. It should not be forgotten, too, that all these movements on a hollow floor are noisy.

2. The fixing of each desk to the floor is rendered necessary for fear it should get pushed off the step on which it is placed. This fixing increases considerably the difficulty of cleaning, and leads to a large accumulation of dirt and sawdust round the legs of the standards and connecting rods, which only gets removed at long intervals and at some expense, because the desks must be unfixed each time for the purpose.

3. The available cubic space in the room is considerably diminished. A stepped and desked floor occupies much more space than the old stepped floor : one which will accommodate 60 scholars will take away at least 4 cubic feet of space from each child, or reduce the accommodation at 80 cubic feet for each child from 60 down to 57 scholars. So that such a floor is costly in two ways ; it costs something to make, and it adds to the cost of building a school for a given number of scholars.

4. Next, the surface of the top of the desks on the upper steps, and some 9 inches vertically between the boys' knees and the flap of the desk are practically invisible to a teacher of moderate height (and a teacher's efficiency is hardly to be measured by his stature). All things are possible to the ingenuity of a schoolboy within such a space outside the ken of his master—caricature-drawing, knife-practice, cat's-cradle, and, worst of all, the open book, the borrowed exercise, or the surreptitious missive.

If asked to suggest a remedy for all these defects, I would say : Abolish the stepped floor altogether in the class rooms for scholars who do written work. The modern

desk on the old stepped floor is like a piece of new cloth on an old garment, and makes new mischief. All the advantages of the stepped floor can be secured in another way. Instead of *raising* all the scholars and keeping the teacher on the floor, keep all the scholars on the floor and *raise* the teacher. Let him have a good wide dais in the centre of the wall on his side of the room. It need not be more than 10 or 11 inches high, but should be 9 feet long and 6 feet deep, so that he can expatiate freely over 54 square feet of surface raised 10 inches above the seated scholars, and then every condition of supervision will be met with none of the drawbacks attaching to the stepped floor. There will also be this additional advantage; the scholars can be called out from their desks at times, and ranged round three sides of the room for rapid oral questioning, accompanied with place-taking if desired. With a stepped floor, the boys, when so disposed, have the disadvantage of being on different levels, and place-taking at all events is rendered almost out of the question by the noise and awkwardness of side-long movements up and down the steps.

No one who has experienced the plan of a *level* desked floor with a *raised* teacher's dais will be likely to revert to the plan of a *stepped* desked floor. The days of the latter are undoubtedly numbered.

Let me close this paper with a few remarks by way of emphasizing the value of what is known as "The Continuous Black Board." A model of a Class-room fitted with this kind of Board may be seen in the Royal Albert Hall. (Exhibit No. 1404.) The surface used as a "Black Board" is formed by 5-8ths of an inch of Parian cement placed on the brickwork of the walls of the room, and afterwards blackened by any of the slaty compositions ordinarily used for wooden blackboards. A deal moulded capping forms the upper edge of the cemented surface, and along the lower edge there runs a narrow trough $2\frac{1}{4}$ in. wide, with slight oak beading, for the purpose of holding the chalk and rubbers. The surface is 2 ft. 6 in. broad, and runs

round three sides of the room at a height of about 3 ft. 3 in. from the floor, except for the 9 ft. of the wall where the master's dais is placed, where it stands 4 ft. 6 in., to allow for the height (10 in.) of the dais itself and the additional height of the teacher.

This most effective piece of school apparatus is now in use in the class-rooms of King Edward's School, Five Ways, Birmingham, and in some of the Board Schools of that town. The cost, inclusive of woodwork, but exclusive of blackening (which may be done by the school care-taker at a trifling cost) was *2s. 6d.* per lineal foot.

The rubbers—an admirable substitute for the old-fashioned cotton-duster—of which there should be one for every two scholars that the board can accommodate, are of plain deal, $5\frac{1}{2}$ in. long, $1\frac{3}{4}$ in. broad, and $1\frac{3}{8}$ in. high, with one surface covered with rough corduroy nailed to the sides. The total cost of these is *2d.* each. They can be taken out of the room and beaten free of chalk from time to time; and the corduroy renewed when worn out.

The most conspicuous advantages of the continuous board are :—

(1) It practically adds to the length of the room. In a narrow room the black board on an easel is often obliged to be put so near the class that the demonstrations upon it cannot be seen by the scholars at the two extremities of the long side.

(2) It affords the teacher a sufficiently large surface of board to admit of his completing a demonstration without having to obliterate the first part of it for want of space, or of leaving formulæ, proofs, grammatical lists, genealogical tables, and other memoranda in face of his class for any length of time. It has also been found of use for writing up the names of those scholars who have shown special merit in a week's or a month's work, or in a particular exercise.

(3) It enables the teacher to test *simultaneously* the knowledge, and especially the *methods of working*, of the whole class in a great variety of subjects, such as map-work, mental arithmetic, mathematics, spelling, grammar, the

drawing of mechanical or geometrical diagrams, etc., besides affording a ready means of rapidly testing the authenticity of language and other exercises done at home.

The dioramic view which teacher and scholars alike obtain of the work, not only enables useful criticism and mutual correction to be employed, but frequently affords to the teacher a more vivid, and sometimes an entirely new, insight into the mental processes of his scholars, and their actual condition of efficiency in a given subject at a given moment.

(4) Lastly, it may be used to stimulate the lazy and indifferent pupil by the great publicity which it gives to his shortcomings. The boy brought face to face with a bare surface of board, on which he is required to write what he knows, and to exhibit it side by side with the work of the other boys of his class, is put upon his mettle, and will frequently be stimulated to effort, when he fails to respond to other incentives.

The CHAIRMAN: I may say, if any of you are disposed to take part in this discussion, and will kindly send up your cards, you will be allowed to speak in the order in which you ask.

DISCUSSION.

Dr. MOUAT: Mr. Chairman, Ladies and Gentlemen: If the discussion which will be raised now upon these two eminently practical and excellent papers, is to be strictly confined within the limits of the definition "School Fittings and Equipment," very little is to be said, for, to every word, with the exception of one or two minor questions of detail, that has been uttered, I give my most cordial concurrence, particularly from the double point of view of an old teacher and a member of the medical profession. I must, however, express my great regret that the question which

has been so much discussed of late, namely, over-pressure, has not been included in some form in this section, for I consider that this question ought to be considered quite as much from the point of view of the teacher as from the side of the doctor. It is not a mere medical question. Education is a very large question, and involves many more considerations than mere teaching and the construction of schools, school furniture, and details of proper management and discipline. It is true that proper hygienic conditions in all matters connected with the structure and fittings of a school will render it perfect for its immediate purpose. A very few days ago I had the pleasure of being taken over some Board Schools in London by a very eminent member of the Board. He took me with great judgment and kindness through one of the older schools, still in use, and I must confess that I was shocked at the utter absence of proper hygienic conditions for the children. To me it was quite certain the children were working in a vitiated atmosphere, tending to exhaust both mind and body. I then went to one of the most recently constructed schools, and there I saw something entirely different, which more nearly came up to the standard mentioned by the first two speakers. There was plenty of air, plenty of light, single desks, proper latrine and lavatory arrangements, and all the details of a perfect hygienic condition in which to place these children. Both the cloak-room, the arrangement of the school-room, and the continuous board, are moves in the right direction, and will certainly fulfil the conditions for which they are intended. Without going into the question of over-pressure, I must say that it should have been approached from the teachers' side also—and let me remind you that, although a member of the medical profession, I was a teacher myself for fifteen years, and held a professorship in a very important institution, where I taught chemistry, chemical jurisprudence and medicine in a very large school—I have, therefore, a considerable practical knowledge of the question from the teachers' side

and from another side, having frequently inspected the schools and colleges in Lower Bengal. The whole of the Government Educational Institutions in that province were under my control, and I constantly visited and examined them, and, therefore, if I have any feeling on this question, it is quite as much, if not more, from the teachers' side as from the doctors'. It was not as a medical man but as an administrator that I was placed in charge of these things, and I must say, that the tendency now to remove all unhealthy conditions will be among one of the most practical solutions of the question of over-pressure. It is not, however, the school standards which are entirely to blame. I do not know, as to mere details of this question, that I have very much to say with regard to them. With regard to light, it is certain that light should be admitted on the left-hand side, and that the pupil should sit square to the front in writing and reading, in order to prevent all those detriments to sight which are so marked in the German nation, and which are being remedied, but are still detrimental amongst ourselves. Again, proper forms and desks, by enabling a child to sit in a natural instead of a constrained attitude, are matters of great importance—of far more importance in the case of girls than of boys. All that is mentioned in the papers on these points has my hearty concurrence, both from a teacher's and a doctor's point of view. As to writing upon the knee, I may tell you that one of the last letters ever written by the celebrated Alexander von Humbolt was addressed to me, and it was written on his knee. With reference to a perfect school: the papers read are confined to school fittings, but I should like to have heard, or to hear, if it can be brought within the limits of this discussion, mention of the question of gymnasiums, play-grounds, and swimming baths, for unless you have a healthy body you cannot have a healthy mind, and it is by such means you will get rid of much of what is attributed to school standards. Those standards are, in themselves, fairly attainable by healthy children of average ability, but they are

not attainable by other children. With regard to my own class, I always found it necessary to classify the students. Some were dull, others slow of comprehension, while others could not hear the professor. The construction of the room had something to do with that. It was a large, semi-circular theatre, with continuous writing boards, and I brought near to me those scholars who I knew had the greatest difficulty in following the lectures, and placed them in the front row, whilst I allowed those who were able to catch what was said to sit where they liked. If I found those at the back were not taking note of what was said, I concluded they could not understand or could not hear. I then tried back over the ground, again and again, until I found that the slowest could follow me. All these things are within the competence of the teacher, and on them I hoped we should have heard some of the experiences of those who are engaged in teaching. With regard to physical exercises, and so on, they will be treated on another day, and it was not necessary to refer further to them here, but they are most important, and no school will be considered a perfect school which does not possess the things I have mentioned. There are two classes of schools —the Belgian and the French Schools—well represented in this Exhibition, and it will be of advantage to understand their construction and arrangement. I think in this question of school fittings we should also have had something of boarding schools. I most heartily sympathise with the views of the gentlemen who have spoken, and I am glad to see so much stress laid upon the purely hygienic part of school construction, because, good sanitary conditions being given, we need not fear the result.

The CHAIRMAN intimated that the length of ten minutes had been very judiciously appointed as the time to be allowed each speaker throughout the Conference.

Mr. A. SONNENSCHEIN, who was very indistinctly heard, was understood to say that Canon Holland had stated that, in his opinion, the single desk was preferable, and that the dual desk had no advantage over the continuous desk,

while Mr. MacCarthy preferred the single desk. He himself thought that the dual desk was preferable to the single desk. He did not agree with those gentlemen in every respect. He certainly was against the continuous desk, but he preferred the dual desk to a series. He would try to explain himself as well as he could, within the limit of time allowed. It was necessary to have a rapid entry, and a rapid quitting at the desk, and, at the same time, they must economise space. As a teacher of forty years' standing, he might say this, that he, for one, found that a teacher could only dominate a certain amount of space; if space was wasted teaching power was wasted. The dual desk had no disadvantage except this, that the pupils might copy from one another in cases of examination. Provision can be made against that, and when the dual desk had not that disadvantage, it had the advantage of economising space and cost, with the disadvantage of copying set aside. He had, fortunately for himself, made it a special study. He could assure them he had read quite a little library on this subject. The question of desks was first started by Dr. Fahrner of Zürich, and Dr. Guillaume of Geneva and Dr. Cohn of Breslau, had worked the question thoroughly, and he was now going to lay before them, not his own views, but the outcome of the study and experience of all those eminent men. They took first the "distance" and the "difference." The distance was the distance between a vertical line dropped from the edge of the desk and the edge of the seat. There should be two distances. For writing the distance should be a negative quantity, that is to say, the edge of the seat should be slightly under the edge of the desk. For other purposes there should be a margin. This, at once, entailed the necessity of a movable seat. Of course, if they had a chair, that could be set aside; but no one would advocate chairs in boys' schools. Then, again, what they called the difference—the difference of height between the seat and the top of the desk. What they said was this, and he was sure they were right, that as soon as a child brought its arms

into writing position, the slope of the desk should meet the arms. If the desk is too low, the back of the child is injuriously curved; if too high, the shoulders are painfully screwed up. The seat should be so constructed that it could be raised, once a year would be enough, to adapt it to the child. Then, again, there should be two slopes, one for writing of thirty degrees, and one for reading of forty to forty-five degrees. Therefore, in those desks there was a movable writing-desk, which a child could adapt to the distance of his eye. Lastly, the back of the seat should be movable up and down, so as to fit in the small of the back of the child. If these conditions were complied with, and they had worked very hard on the Continent to secure these advantages, he believed they would have what they might call a true hygienic desk. Now, as to the light coming from the left. Of course that was a very old acknowledged principle on the Continent and everywhere. In this country it was not yet universally acknowledged. He had had a very stiff fight for it in London, and had not carried the day yet. In one of the schools in his own district, the Anerley Board School, they would find the windows were at the back of the children, and that was in a school-house lately built, costing something like £10,000. He saw a member of that School Board present, who would bear him out in that. Something else was said about length of lessons, and interruption between lessons. He contended, whether they were boys or girls, young or old, the lessons should never be longer than from fifty to fifty-five minutes, with a clear recess between. There was a splendid school in the Rue d'Italie, in Geneva, where there were fine corridors for circulation among the scholars during recess. A great deal had been said over and over again upon that painful question of over-pressure. It was denied and reasserted, and again denied. He ventured again to reassert it. He believed the managers and teachers were both to blame, but to a much greater extent did the blame attach to payment by results. Where they made their salary dependent upon results, they could not

call upon a large body of men and women to practice self-denial. But even if managers and teachers practised such self-denial, the inspector would come, and if the children were not up to the required standard, his endorsement of the teacher's parchment would jeopardise the teacher's status. Another point that had not been touched upon, and which he was not now able to touch upon, was the size and shape of the room. That was of the utmost importance, as was also the difference between morning and evening work; and, lastly, that very difficult question of home lessons. They were invariably a source of anxiety to the children and to the teachers.

Mr. W. WHITE, F.S.A. (Fellow of the Institute of Architects): Mr. Chairman, Ladies and Gentlemen, I understand this question of the treatment of healthy education to refer not only to the School Board schools, but also to the large general system of English education, as it is now being developed in High Schools of various descriptions as well as in Board schools. I think the tendency in this discussion has been rather to limit it too much to the question of Board schools. I know little of the working of Board schools to what I do of other schools, but I know that in the Board schools I have understood, from inquiries I have made, that the various causes for that which is called over-pressure —I cannot enter into the question of whether it is an endeavour to impart more instruction than the child is able to receive,—but I do know that in various ways, in the construction of a school and of its appurtenances, that there has been a considerable amount of over-pressure induced. I mean in this way. Unless a child is perfectly at ease in receiving instruction, it puts a double effort upon the child's attention, and it requires a double amount of teaching to impart that instruction to the child. There is one item of instruction which came before me a very short time ago, and I had it from a lady who did teach, and who had the superintendence of the physical department in the London School Board. She complained grievously of the manner in which the school children were obliged to sit with one arm

in advance of the other, in order to write their exercises, for fear they should be looked over or be able to look over what the one next them was writing; and I understand that she tried again and again to have that obviated, but without any success. Whether that is continued or not I do not know; I only sincerely hope it is not. Another thing which I am sure operates very injuriously upon the working of the children, is the smallness of the print of many of the books—i.e., of children who are only able to read moderately, and have not a perfect knowledge of all the words, as we have who have read more. It takes them a greater amount of time to pore over small print than it does over large, and stooping to do that in any manner whatever is highly injurious, but more especially when it is enhanced by the smallness of the print. As regards light on the left, it has now become an established principle that it should fall from the left hand; but I know there are eminent medical men, who have made the study of the eye their practice, who say that that is injurious in another way. If the light falls exactly and always in the same position upon their eyes, or upon their work, although it may not fall upon their eye at all, if it come in side ways, it fixes upon the eye a certain permanent mark, so to say, which again is injurious. I have no personal knowledge of that, but I have heard it said if the light fall in one direction, and in one position, it is injurious in that respect.

The CHAIRMAN: You mean there should be a change of position?

Mr. WHITE: I mean there should be a change of position, or that the light should fall in different places. I have heard of a school in which there are windows on both sides of the room equally, and I was asked in what way it would be most easy almost to block out the light, at any rate subdue the light on one side, because the equal light on both sides was objectionable for their purpose.

A MEMBER said in an office he knew they always got

the light from one side, and sometimes, when necessary, they had a top light.

Mr. WHITE: I have had recourse to that, and I have had recourse to closing the lower shutters, and things of that sort. One question did not seem to me very clear, where Canon Holland seemed to question whether a proper support to the spine were really necessary for children. I have had enough experience with my own children to say most positively that the support to the back, and the mode of giving it is a matter of the greatest consequence in the education of children. Here we have in this very room two modes of sitting: one is straight and another is sloped, but I say the flat sloping back really does not give more support than the other does. If any of you who require support will put your hand between the framing and the small of the back, you will see what support that will give. In leaning against these seats for an hour you will know what I mean. Besides, in order to obtain the necessary support in the small of the back, it is absolutely necessary that the lower part should be sloped a little back in order to allow of sitting well back. Mr. MacCarthy spoke admirably about all the appurtenances on entering a school, but there was one thing he did not mention, which I conceive to be of equal importance, although, I admit, of the greatest difficulty in carrying out. We know how very quickly the floors of the room get covered with dirt, and in muddy weather with wet dirt. We know what the exhalations from the dirty floor of a school must be, and the mode used to sweep up the dirt after the school ceases. If it were possible to add to these appliances the possibility of changing shoes, which is carried out in all well-organised schools conducted upon the High School principle, it would be well. There is only one other matter, and that is what Canon Holland said with reference to the provision of locks. The only way of getting over the difficulty is, that each boy should have a lock with a separate key; a master key should be in the possession of the headmaster or second

master, as the case may be, or whoever requires it for the purpose of being able to open the locker when it may be necessary, and a duplicate of each also to supply its place when a key is lost.

The Rev. Professor D'ORSEY, of King's College, London, said, that following the admirable example set them that day of dealing with experience rather than with a general statement, he would begin by informing them in the fewest possible words that fifty years ago he was appointed one of the masters of the High School at Glasgow. He found himself in the midst of a number of boys without classification, whom he was expected to teach seven hours a day, all in the same room and at the same time. He set about classification, and divided the pupils into seven different grades, and took each grade for an hour, and by so doing very much excited the indignation of the Glasgow bailies, who said they paid for six hours' instruction of their children and meant to have it. He, however, said that at the end of a year, if they would allow him that time, he would be glad to show them the results. The result was, in the end, perfectly satisfactory. The seven classes began at nine o'clock and finished at four o'clock, each boy having one hour, and in some cases two hours. His next business was to revolutionise entirely the mode of sitting. They were all seated on forms described more than once that day. He immediately introduced a semicircular arrangement, and divided each side into senior and junior. Each bench had seven boys, and each class fifty-six pupils. The class-room was as quiet as this room, the teacher's voice was as well heard as his, with no strain upon him or upon his pupils. Contrast that of fifty years ago with the so-called modern improvements, where you have one class and one teacher in one room, separated only by curtains from the next, where a similar performance was going on. As to black boards, his was in a frame, and lifted up and down. It was on castors, and could be moved to any part of the room, and turned in any direction. The

advantage of that he need not explain. As to ventilation, he entirely agreed with what had been said as to the importance of doing work in a pure atmosphere, and he regretted that in London, even in Royal Institutions and Polytechnics, where they had lectures on oxygen, there was an exceedingly small modicum of that element. Then as to light. They found an advantage in having windows on both sides. Each boy was in charge of a window, and when the word was given to dismiss, his instructions were to pull down the window three feet, which had the effect of carrying off all the vitiated air. The great principle upon which he acted was giving short lessons. He was delighted to hear what the previous speaker said, that lessons should be of fifty minutes' duration. He never gave more. There was a constant cry of depriving the boy of his proper time, but he found that with care they could do more in fifty minutes than they could by giving a lesson without care in twice fifty minutes. By a constant activity on the teacher's part, the whole class of fifty-six boys worked as one pupil. His concluding remark was this. Sometimes examinations were by paper; sometimes *viva voce.* He had both. He had a small black board held in the hand, and each boy had a corresponding slip of paper with numbered blanks. The teacher examining held the black board in his hand, put the questions orally to the class, and wrote the answer on his board. If he were examining a class in English history, he might say—Where did William the Conqueror embark? Where did he land on the English coast? What was the date of the battle of Hastings? Where was the battle of Hastings really fought? The pupils having written the answers, papers were exchanged, and he held up the board, by which the pupils corrected each other's papers. Each boy had thus the same questions, and the exchange taking place, they would observe the correction and marking depended upon the honour of the boys, which in twenty years he never found to fail. He had endeavoured to shorten these explanations; he had merely given the out-

line, but he had ventured to do so, having had twenty years' experience at a high school, at a time when school methods were only beginning to excite attention.

Mr. FITCH said, he would only recall the attention of the meeting to the important statements made in the two papers which they had heard. The chief subject of their discussion was the question of construction and fittings. He should like to accentuate as strongly as he could the remarks of Mr. MacCarthy about the great value of the continuous black board. They were all of them able to see the use of single boards of very limited area. He was sure the fact that the area was so limited often prevented teachers from teaching half what they ought to do, and some of the best teaching he had seen was in schools where the board ran all along the walls. Many of the ideas which Mr. MacCarthy had brought before the meeting well deserved their attention. On the subject of dual desks there had been a good deal of difference of opinion. They wanted two things with regard to the arrangement of desks. They wanted sufficient room and play for the scholars when they were writing, but on the other hand they might get that at too great a price, if they set the children too far apart. For all teaching of a collective kind and for oral teaching they wanted to bring their classes more into focus. Single desks appeared to him to involve the spreading out of the scholars over too large an area, and a great expenditure of voice on the part of the teacher. The dual desk had this enormous advantage, that whereas it gave plenty of room for the writing exercises of two, it sufficed for three scholars when they were listening to a lesson, and it enabled the teachers to draw the scholars more closely together. His opinion was that locked desks were not desirable things. He did not like scholars to have secrets, and he did not think it desirable to have locked desks with all kinds of miscellaneous things in them. He agreed with the suggestion that as a matter of discipline it was better not to have locked desks at all.

THE USE OF PICTURES AND OTHER WORKS OF ART IN ELEMENTARY SCHOOLS.

By T. C. HORSFALL.

IN this paper I shall first mention some of the advantages which I believe school children and the rest of the community would obtain by the right use in elementary schools of pictures and other works of art; then I shall give some of my reasons for believing that those advantages would be gained; and next, I shall indicate the kinds of works of art which I believe to be suitable for use in schools, and explain what, in my opinion, constitutes the right use of works of art in a school.

I believe that the right use of works of art in elementary schools will effect an improvement in the taste of English workpeople and employers, which all persons conversant with English manufactures know to be very desirable;

That it will reveal to many children who live in the crowded parts of large towns some of the highest qualities of their own nature and that of their fellow-creatures, of the existence of which most such children, and many also of those who live in pleasanter places, are not aware;

That it will soon make the homes of many workpeople more attractive than workpeople's homes generally are now, and will do much towards creating a fuller and happier family life amongst the workpeople of towns, by opening to them many pleasant occupations and amusements which parents and children can enjoy together, and which will therefore create between parents and children the bonds of common interests and pleasures;

That it will make schools more attractive for children, and add to the brighter side of the culture of

teachers, and, while making their work pleasanter, increase their influence over their pupils.

Improvement of Taste.—Two conditions are needed for the development of good taste in a person who has the qualities needed for its acquisition. One of these conditions is, that from childhood onwards he shall habitually see beautiful things; and the second condition is, that in childhood and youth people whose opinions he respects shall make him notice the difference between beautiful and ugly things, and make him feel that they regard beauty as a thing of great value.

It is impossible to insist too strongly on the dependence of good taste on the existence of these two conditions. The co-existence of both is quite necessary. The second cannot, of course, exist unless the first does also; but the first exists for many persons without the second, and then exists for most of them in vain, so far, at least, as development of taste is concerned. All children in the country habitually see beautiful natural forms and colours, but this does not suffice to make most of them even perceive the difference between good and bad form and colour.

It is impossible to be too hopeful as to the results to be expected from the creation, for the majority of the people, of the two conditions which I have said are necessary for the development of good taste in those in whom the power to gain it exists. For there is no reason to doubt that the power exists in almost every one. The relation existing between our brains, or the whole of our nervous system, and colours and forms, which makes some colours and combinations of colours, and some combinations of lines and curves pleasant to most of those persons who habitually give much attention to the effects caused by forms and colours—this relation must be of the same kind as those fixed relations between sounds and our nervous systems which make certain sounds and combinations of sounds pleasant, and others unpleasant, to all persons who have had good musical training. Because a great many grown-up persons find it impossible to learn

to sing correctly, and others cannot even perceive any pleasantness in music, it used to be supposed that a considerable part of the race are born without the power to gain love of music and skill in it. Now it is known that it is a question of early training, and that there are not half-a-dozen children in every thousand who cannot gain the power of singing correctly and of enjoying music if they are well taught in childhood, while their nervous systems can easily form habits, and have not yet formed the habit of not noticing differences of sound. There is, then, good reason for believing that the power of discriminating between good and bad colour and form can also be given to almost every one by proper teaching in childhood. On the other hand, it is nearly certain that few of those who, when childhood is over, still lack a keen sense of the difference between good and bad colour and form, will be enabled to gain it to any marked degree by subsequent training in schools of art, the chief function of which is not to create a sense of beauty, but only to develope it and teach it the best modes of expression.

It is only in schools that we can hope that most children can be enabled at present to habitually see beautiful things and feel the influence of persons respected by them, who, perceiving the difference between beautiful and ugly things, can lead the children to feel that beauty is a thing of great importance.

Pictures are amongst the beautiful things needed for this purpose in schools—I will say later what kinds I believe to be most suitable—but I feel sure that other things are needed also, and that examples of beautiful textile fabrics and beautiful simple forms of pottery and glass, can be made means even more efficient than pictures for teaching children to think about and feel the difference between good and bad form and colour.

Useful as collections of works of art in schools would be if they only developed good taste in a considerable number of children, the development of good taste is a result of but small value in comparison with those other advantages

which I said the use of good works of art will probably give. In order that I may show that they are needed for the gaining of those other advantages, I must trouble you with some evidence to prove that at present a great many English children cannot know much about some of the highest qualities of human nature, cannot know that such a thing as full, wholesome life exists, and cannot have many of the occupations for leisure time which are needed to create strong bonds of loving companionship between parents and children, husbands and wives, brothers and sisters.

Some time ago Mr. H. E. Oakeley, Her Majesty's Senior Inspector of Schools for the Northern District, after reading a paper issued by the Committee of the Manchester Art Museum, wrote to me: "It is perfectly true, as you state in your paper, that a very large number of children in Manchester and Salford are living in places where they never, or very rarely, see anything which is beautiful. I have often found in places like Ancoats and Bradford"—parts of Manchester—"that children scarcely know what a flower is, and have seldom if ever seen a primrose or violet."

Then Mr. Oakeley went on to tell me that in one school in Ancoats he found a whole class of children who had never seen a bee, and had no idea what it was like or where it might be found.

In a later letter, Mr. Oakeley says: "I had an experience at a school to-day which caps the bee story. In some lines learnt by boys in the 6th Standard there was something about a skylark. I told the boys who had ever seen a lark to hold up their hands, and four out of about twenty did so. I said to one of them, 'Where did you see a lark?' He replied, 'In a cage at the public-house at the corner of the street.' Poor lark, and poor lads!" During last summer a woman who lives in Manchester, whom I had been telling about squirrels which come into my garden, asked me, "And what kind of birds might them be?" And a few weeks later a Manchester girl, who was passing under

a mountain-ash tree, the red berries of which hung close to her face, asked if those were roses. The Rev. Mr. Lund told me that a Manchester Sunday school teacher and one of the scholars who had caught a dragon-fly, thought—the one that it was a kind of bird, the other that it was a serpent. A lady who worked at Mildmay, in London, told me she found that many of the children she taught did not know what a lamb was like. This summer a girl of twenty, one of a group of Manchester work-people who were in my garden, after looking for some moments at a plant covered with purplish blue flowers—an aubretia—asked if the flowers were forget-me-nots, and not one of her companions answered the question, which I did not at once reply to.

It is of course impossible to know how many of the inhabitants of large towns have ignorance of this kind, but it is quite certain that it is very common. Some of the persons to whom I have spoken on this subject have told me that the ignorance is not as complete as it seems to be, and that, for example, the children who did not know what a bee was like knew bees by sight though not by name. I do not think that this is so, but even if the ignorance of many town people respecting the common objects found in the country were confined to inability to connect names and things, even that degree of ignorance would be, as I shall show later, a very great evil.

I need not argue here that Wordsworth's well-known words : "We live by admiration, hope and love," are literally true, if by "live" we mean the higher part of life ; nor need I prove that it is by admiration and love that we gain our highest and most sustaining hopes. But though no thoughtful person needs proof of the truth of these general statements, and though probably every such person remembers to the end of life the keen pleasure he received in childhood from daisies and buttercups, from birds and butterflies, I fear few even of the most observant people realise how much the degree and nature of love and hope depend on early familiarity with beautiful things.

We see in our children that in those earliest years of life, of which in later life we remember nothing, beautiful things give delight, that a child a year old already enjoys the bright beauty of flowers and leaves. And it is impossible to doubt that this early delight in beautiful things is one of the principal agents in developing the power to love both things and persons, and that it co-operates with our love of persons to make us know that there is such a thing as wholesome life, well worth living, and to make us know always, as we grow up, that what most makes life worth living is the activity of our highest powers of admiring and loving. What can give the knowledge that there is such a thing as full wholesome life to children whose early years—those in which they are forming habits of thought and feeling, which may afterwards be modified, but never quite got rid of—are passed in places where nothing more beautiful than the ordinary contents of an English back street is to be seen? No human life is likely to escape moral shipwreck which is not directed from the first by desire for rightness, and what can give desire for rightness to children whose powers of admiration are never exercised by admirable things? It may be replied that love of people is in the childhood of all of us a stronger agent in developing the higher powers of feeling and thought than admiration of things can be, and that the children of town workpeople, among whom a generous mutual helpfulness and charity are common, have their powers of admiration, hope and love, developed by love, from and for, parents, brothers and sisters and friends. But for the training of the higher powers thus given to the children of the people of our towns England would be in poor case, but it is at best an imperfect, inadequate training. Those limits to the action of imagination which in theology reveal themselves in anthropomorphism force us to create conceptions of our fellow creatures in our own image. It cannot occur to the child who knows of nothing more admirable than mud pies, marbles, and things which are good to eat, that his

fellow-creatures have higher pleasures, and his love of them must lack reverence, and his conception of the best life open to him must be too low for the power of gaining it to seem worth the cost of much effort and self-denial. Stir his nature with admiration of beautiful things, and you give him not merely a new pleasure, but also new fellow-creatures, able like himself to admire. Enable him to enjoy a picture which he could not make, and he feels vaguely that among his fellow-creatures are people of higher powers than his own, and his conception of life rises to a higher level. It is no exaggeration to say that to enable a child to feel joy in the beauty of Nature and Art who has never felt it before, is in Coleridge's words to give him "a new earth and new heaven." And till this is done, the conception of human life framed by the "average" child of even loving parents in a crowded town must be low.

It is certain that those who are ignorant of beautiful things cannot enjoy the best kinds of recreation, and are thus deprived not merely of pursuits desirable because they facilitate resistance to the temptations of drinking and gambling, but are also deprived of some of the influences best fitted to strengthen family love. Sorrows endured together, of which town people get their full share, are doubtless the most potent agents in giving strength to love between members of a family, but those agents cannot alone complete the task. Countless memories of innocent pleasures enjoyed together, the habit of expecting companionship from each other in the pleasures looked forward to, a store of pleasant knowledge held in common, and the habit of discussing with each other the thoughts and feelings rising from it, these things are also necessary to create ties of love between members of a family.

Which of the best kinds of recreation that can weave these bonds of family love, and at the same time lessen the temptation of sensual indulgence, are available for persons who have hardly any knowledge of the commonest objects of Nature? Music and physical exercise are almost the only ones, and pleasant physical exercise is not at present

obtainable by the greater part of the people of large towns, and opportunities of hearing good music are still rare, though happily becoming more numerous every year. Conversation, except of the poorest kind, is impossible without such knowledge. Picture galleries and art museums cannot be attractive to those who do not know the elementary forms which art combines. Visits to the country, though pleasant, can have but a comparatively small degree of pleasantness for those to whom country things are almost unknown and unendeared by early associations. We are apt to believe that our elementary schools and free libraries are opening the best kinds of recreation to our working-classes, and that a few years hence almost everyone will gain much pleasure from the best literature. Those persons will not share this pleasant belief who will try the experiment of placing the poetry and prose they care most for in the relation to their brains and hearts which it must have to the brains and hearts of those who know nothing about the country and its reflection in art. Imagine each picture blotted out which is brought before the "inward eye" by each word that is for us the name of some well-known thing; imagine all the vague feelings suppressed which rise in us at the mention of each familiar thing that for us has innumerable pleasant associations; and the finest poetry, the best talk seems to be little more than "as is a landscape to a blind man's eye." The reading of empty names must be dull and unattractive. It is, I am convinced, impossible to think about the subject without seeing that familiarity with beautiful things is one of the conditions needed to enable literature to add much to the welfare of the community.

We cannot hope that the majority of town children will have as much familiarity with Nature as is desirable until, the air of our towns having first been made purer, every new block of houses near a town has its plot of garden ground; until open spaces are cleared within easy reach of all old blocks of houses; till plants are more generally grown in town dwellings; and till winter gardens, botanical

gardens, and art galleries are much more numerous than they now are. But changes so great cannot be effected unless the greater part of the population desires them, and those of us who have tried to obtain open spaces and art galleries for the people know that at present the greater part of the population is not even aware that these things are desirable. At present, therefore, we can only hope to obtain the measures needed to so train the children of to-day that they shall know the value of beauty, and when they grow up seek to bring it into towns for themselves and their children.

The means which can now be most effectively used for making knowledge and love of beauty common are, I think, the substitution of the Kinder Garten system of training for the old system in all infant schools, and the careful direction of the new system to the purpose of making children know and admire as many natural forms as possible, and of training their hearts and minds to desire to see such forms often; the teaching of drawing from objects in all schools; and the providing of every elementary school and every Sunday-school with a collection of good works of art. As the Committee of the Manchester Art Museum have lately been taking the course which seems to me to be that needed for gaining all the advantages obtainable by the use of pictures in schools, I will describe their system. First, I must speak of the system of their central collection, that of the Art Museum, to which as many references as possible are made in labels attached to the pictures lent to schools.

The Art Museum, which was opened last month by Mr. Mundella, contains as many pictures as we can find room for of beautiful scenery and interesting places in the neighbourhood of Manchester. Some of these pictures are in oil colours, some are water-colour drawings, etchings, engravings, photographs. In order to show workpeople that they can easily get pictures for their own homes which will pleasantly keep alive recollections of places and things which have given them pleasure, we state the price of the cheaper kinds of art shown in every part of the Museum.

There is a collection of pictures of common wild and garden flowers ; one of pictures of common kinds of trees ; one of pictures of common wild birds ; one of pictures of other animals ; one of pictures of well-known places in different parts of the world ; one of beautiful landscapes ; one of seascapes ; one of war scenes ; one of religious subjects ; one of portraits ; one of copies of works by Turner, chiefly illustrating English scenery. In some of these groups of pictures, representations of the same subject by different kinds of art—etchings, engravings, water-colour drawings—are placed side by side in order to facilitate careful comparison of the effects obtained by different processes. Many of the pictures—the plates of the Liber Studiorum, and those of the Harbours of England, for instance—have full descriptions and criticisms hung by them. Each of the other pictures has, or will have, a label containing a short explanation of the subject, and a statement as to whether it is an engraving or etching, or whatever it may be. One set of pictures illustrates the development of architecture and sculpture, one that of Italian painting. In cases, there are sets of the tools, &c., used in the various art-reproducing processes :—plates etched and prepared for etching, engraved plates with impressions from the plates, wood blocks for wood engraving, the stones used for lithography, the blocks used for colour-printing ; and a brief explanation of each of the processes. Short lectures on the processes and on many other subjects will be given. A band of explainers is being formed. There are also cases of examples of well-shaped, pleasantly-coloured pottery and glass, metal work, and textile fabrics, many of them of the commonest kinds, fitted for common use. There is, too, a model small house, fitted up with well-shaped, well-made things by Mr. W. Morris and Mr. W. A. S. Benson, and there are some casts of Greek sculpture, shown to advantage by having richly-coloured stuffs hung behind and on each side of them.

I have been obliged to speak rather fully of this central collection as it is virtually part of each of the collections

lent to schools in Manchester, but I have had to leave many important features unmentioned. A description of the scheme of the Museum has been printed, and the Committee will gladly send a copy of it to anyone who desires to have one. The system of the Museum includes the lending of small collections of works of art to all the elementary schools in Manchester and Salford.

It is intended that each of the collections lent to schools shall eventually contain a few examples of beautiful textile fabrics, beautiful common pottery and glass, and casts from sculpture, but at present they consist of pictures only. We lend pictures of beautiful scenery and interesting buildings near Manchester,—these pictures are chiefly photographs,—chromo-lithographs and engravings of other beautiful landscapes and sea scenes, pictures of scenes in the Holy Land and Egypt, of historical scenes, of beautiful wild and garden flowers, of trees, of common birds and butterflies, of fairy tales—good examples, in short, of almost every kind of picture. Many of the pictures are, all are to be, provided with labels which tell what the subject is, and of what process the picture is a product; if it is cheap, what its price is, and that of its frame. The labels also make as many references as possible to the Art Museum, to books, to our local Botanical Gardens, and other pleasant places open to workpeople. Thus one of the labels to a picture of a swallow gives a little information about the habits of the bird; another tells that the picture is a lithograph coloured by hand, that an explanation of lithography and the things used in it can be seen in the Art Museum, that pleasant information about, and good pictures of, birds are found in White's 'Selborne,' a copy of which can be bought for sixpence, and in Johns's 'English Birds in their Haunts,' which costs 6*s.* 3*d.* The label to a frame containing pictures of garden flowers tells that the pictures are chromo-lithographs, speaks of the imperfections of this process of representation, and recommends that the pictures be compared with water-colour drawings of the same flowers in the Art Museum. It tells

also that some of the flowers will grow in houses in Manchester, and that they are to be seen in the Botanical Gardens, and in some of the public parks. The label to a set of photographs of Greek sculpture tells that casts of the sculpture are in the Art Museum, and praises their beauty.

Each school can have its collection replaced by another once in three months.

There is a collection of our pictures for schools in the Health Exhibition, but it was hurriedly formed, and does not contain examples of pictures of English scenery, or of other important classes of our pictures. Nor are all the pictures in it yet provided with labels, the preparation of which takes much time.

After what I have already said, I hardly need add that we do not expect that pictures of beautiful places and things can at first have much meaning for those children who know nothing, or almost nothing, about the things represented. The child for whom real buttercups and daisies, the flight of swallows and the song of larks have no happy associations, who has never felt gladness in fields or on hills, will see very little in pictures of flowers and birds, fields and hills. But still pictures of these things will be of great value even for such children. Some natural beauty is within reach of almost every child, most children have some of it sometimes before their eyes. Ignorance of it is so common partly because their eyes have not gained from heart and mind the power to see these things, partly because "what the eye never sees the heart never longs for," and opportunities of seeing natural beauty at a little distance from home, and of bringing it into homes, are not used or sought for.

The words, now so often quoted, which Mr. Browning puts into the mouth of Fra Lippo Lippi are, I believe, perfectly true :

> "We're made so that we love
> First when we see them painted, things we have passed
> Perhaps a hundred times, nor cared to see ;

> And so they are better, painted—better to us,
> Which is the same thing. Art was given for that—
> God uses us to help each other so,
> Lending our minds out."

If a child is led in school, as he easily may be by a few words spoken by his teacher, to notice the form and colour of a flower in a picture, or the forms and colours in a picture of landscape, and to find a little pleasantness in them, he will be sure to notice with pleasure the next flower or place of the kind he meets with, and pleasure in the thing will make him care more for the picture, and will give meaning to the name when he next reads it in a book, and thus will begin for him that interaction of art, literature, and nature, to which each of the three owes most of its power to give us ennobling pleasure.

One of the good results that will be obtained from the use of works of art in schools will be due to the fact that unless they are explained by teachers they will be comparatively useless. Now that the Art for Schools Association * has made it possible to obtain good pictures at low prices, every good school will soon be provided with a collection, and teachers will be expected to make use of them.

This will involve the acquisition by many teachers of some knowledge of art processes, and some love of beautiful colour and form. Every intelligent manager of a school will agree with me in believing that the acquisition of this knowledge and love will be a very great gain. The acquisition of them by teachers for communication to children, far from adding to the burden on teachers and taught, will greatly lessen it, and the results will, I am convinced, do much towards proving the superiority of education of powers of feeling and thought to mere instruction.

I must say a few words respecting the success which has already been obtained by the use of pictures in schools.

* The Hon. Secretary is Miss Mary Christie, Kingston House, Kew; and the Office of the Association, where its pictures can be seen, is at 29, Queen Square, Bloomsbury.

We have as yet lent pictures only to twenty schools, and the Art Museum has only been open a few weeks. We have not, therefore, had time to ascertain if a considerable number of children will be led by our school pictures to study the collection in the Museum. But we know that in other ways the pictures lent have been very useful. I will give some evidence, which has come to me without my seeking it. Mr. Godolphin Rooper, H.M. Inspector of Schools at Bradford, visited on a Saturday some of the schools in Manchester to which we have lent pictures. He told me that he found some children playing in the street near one of the schools, and talked to them about the pictures. They told him that they liked having them, and that some of the children brought their dinners to school in order to see them. I asked a boy who, a few weeks ago, was sent to guide me from one Board school to another, if he and his schoolfellows liked our pictures. He said, "Some of us come half an hour earlier to see them, especially when there are any fresh ones." Mr. Mellor, the Master of the Manchester Free Elementary School, told me that our pictures not only brighten the schoolrooms, and make them pleasanter for teachers and children, but also enable him to give the children, in a way which is pleasant for both sides, clear ideas about many things,—ideas which, thus given, he says, are never forgotten. He pointed to one chromo-lithograph, which has taught many children the meaning of "plain" and of "a river," and "group;" and to another which has given clear ideas of "a glade," "tree-trunks," "foliage," &c.

I have spoken almost exclusively of pictures of beautiful objects of nature. I have done so, because in a short paper I could not speak of many classes of pictures, and the advantages obtainable from the intelligent use in schools of pictures of this class are less obvious, and, in my opinion, more important than even the great advantages which will be obtained from using in schools good pictures of historical, religious, and other subjects.

There are two points on which, in concluding my paper,

I wish to say a few words. It is of so much importance that all children shall receive the training of heart and brain which can be gained only through knowledge of Nature and good Art, that children ought to be taught in school that it is a duty which they owe to their neighbours as well as to themselves, to go into the country as often as they can, and to go also to botanical gardens, picture galleries, and museums. All children ought also to be taught in schools that it is the duty of every community to provide itself with public gardens and art galleries. Many persons think it dangerous to teach children their pleasant duties, and to teach them that others have duties towards them, but until we teach children their pleasant duties we shall get little attention from them to what we tell them of their onerous duties; and only by teaching the individual citizen what are the duties of the community to him shall we be able to make him learn what are the duties which he and his fellow-citizens owe to others.

The second point I wish to refer to is this. We cannot hope that many children and young people will form the habit of spending part of their leisure time in acquiring familiarity with beautiful things; we cannot expect that many members of workpeople's families will form the habit of enjoying those innocent pleasures together, which are needed to strengthen family bonds, so long as the community prevents the doing of these things by closing the only places where it is possible for most people to do them on the only day on which they can be done. I cannot use here the arguments which seem to me to prove that public gardens and art galleries ought to be open on Sundays, but at least I must say that it is of such immense importance that children shall gain familiarity with beautiful things, and that parents and children of the working-classes in towns shall be enabled to have pleasures in common, that, if gardens and art galleries are not to be opened on Sundays, we ought to lose no time in transferring their contents to those places which are open on Sundays,—to Sunday-schools, churches, and chapels.

DISCUSSION.

Mr. CAVE THOMAS said: I regret to have to take an opposite view to that of Mr. Horsfall; not, be it recollected, against the teaching of drawing, within well-defined limits, for from 1851 till the present time, I have advocated this as the proper gymnastic for the sense of sight—as one of the most important items in general education. But I am totally opposed to the introduction of pictorial art into schools, for at the school-age one is liable to be biassed by some special form of art before the judgment is matured. Modern notions about education in taste and art would appear, for the most part, to be founded on the fallacy that the beautiful is the sole aim of nature and of art. Upon this point the late Sir John Herschel once wrote to me: "The Creator had other objects in view in creation than that of the beautiful," or in words to that effect. And upon slight reflection we may perceive that without the contrast of the ugly, the beautiful—as the beautiful—could have had no recognition. This proposal to introduce pictorial art into the decoration of schools, hospitals, &c., appears to me to be an invertebrate notion, and would, with similar well-intentioned but mistaken movements, tend to raise a gelatinous humanity equally destitute of backbone. The beautiful, as Sir John Herschel correctly observed, is not the whole and sole purpose of creation. Our modern æsthetes appear to possess a vanity equal to that attributed to Kneller, who, on it being suggested by a noble lord, his sitter, that it was a pity he was not present at the Creation, replied that he thought it was, as he could have suggested some improvements. Stars do not cover the heavens—the world is not entirely made of diamonds and rubies. Flowers do not envelope the landscape, nor spring from every tree, and flowers themselves differ in degree of beauty as one star differs from another. Neither is animate nature one continuous exponent of the beautiful. The beautiful should be regarded as the bright oasis in

nature, to be looked forward to, to be admired, and to be enjoyed as we go laden forward in the serious business of life. Or, to speak of it in a more familiar sense, the beautiful, in the form of art, should be reserved for contemplation on high days and holidays. We have to consider the constitution of the human nature, and that familiarity breeds contempt. Beauty, notwithstanding the dictum of the poet, is not a joy for ever. Let the most beautiful object be placed in our common room, and we shall after a while take no note of it. Music is charming; nevertheless, we do not desire to perpetually hear it. The drama is entertaining and instructive, but we do not wish to be always at the theatre. Art is delightful to contemplate, but we would not have it ever present to our eyes. It would seem to be entirely forgotten that there should be a time and a place for art as for other entertainments. Public buildings, museums, exhibitions, are the proper places, and when the eye can be permitted to make holiday the proper time. Public art is vastly more important than private collections, though the wealthy may indulge in these. It is the character of public and contemporary art that gives tone to taste. For my own part, I would insist upon a Spartan simplicity and proportion in the homes and schools of the masses of a robust people. I have no sympathy with the proposal to bedizen cottages, hospitals and schools with art; it is the offspring of a morbid æstheticism, and a proposal which, if carried out, would, instead of promoting, demoralise the taste of the people. The power of discriminating between beauty and ugliness is intuitive. The classes about whom our would-be art reformers are so solicitous have, as the classes above them, that faculty of discriminating the beautiful implanted in their very nature, but they have this advantage, that they are free from those affectations of taste which are the engrafting of fashion. It would in my opinion be far better to leave all scholars, students and working-men to form their own taste. If a sense of beauty were not a part and parcel of our intellectual constitution, we should never have had to

talk about the beautiful. It is not in the power of human beings to create this sense, it is implanted and progresses *pari passu* with the development of the human nature, as the power of presenting the beautiful by art does. The most perfect art is not the root and stem of civilisation, but its crowning grace, its flower—the effect, not the cause. The appreciation of the beautiful, as Christianity has fully recognised, is not the difficulty. That is easy enough. It is beauty and pleasure that the world runs after overmuch. But who shall learn to care for ugliness, and to know that this must also necessarily exist. The aim of Christian art, therefore, has rarely—very rarely—been the presentment of the beautiful. It was seldom the aim of Raphael, and never that of either Michael Angelo, Rubens, or Rembrandt. Art in the Christian ages has had to occupy itself with the delineation of human nature, as it is, ugly, deformed, and maimed, rather than with the ideal. The object of modern art is not solely the presentment of the beautiful. It gives form and colour to every variety of character and of incident. Modern art is, *par excellence*, the illustrator. Our modern critics have got into a muddle, and have confounded the Christian art motive with the Grecian. The beauty of childhood, of youth and of manhood, and not only of these but of animals, &c., are ever before the eyes of all classes. Of what use, then, would it be for the Department of Science and Art to issue a few photographic beauty patterns for the amelioration of the taste of the masses? Nature's museum is ever open to the people. What art reformers should do, and what they therefore persistently refuse to do, would be to make art public by having the national edifices decorated with great subjects, in painting and sculpture. This is the only true way to move the people through the eye to great thoughts and acts—to thoroughly enlist art in human progress. The pursuit of the beautiful is the pursuit of the pleasing, and the pursuit of pleasure as a sole aim, either in art or in life, does not tend to elevate but to demoralise. The progressive development of Grecian and of Italian art was not, as anyone

may learn from even a cursory glance at their monumental remains, brought about by the contemplation of perfect art, but step by step through imperfection to perfection. The best art came last, both in the Grecian and in the Italian epochs. We may perceive, then, that this art progress was not brought about by the contemplation of the most beautiful handiwork in art, but by the progressive development of the human nature. I would say, then, let us above all things be solicitous about the general education of the people, and let us talk less about art. If the general education of the people be proceeding on right lines we may be quite confident that the fine arts will, in the progress of time, by the process of the suns, come to be rightly cared for and rightly appreciated. If any apology be needed for these somewhat rough words, it should be recollected that Diogenes was the necessary antagonist of the luxurious living and the tall talk of a Plato.

Mons. EAST, Rector of the Academy at Périgueux, said he was quite of Mr. Horsfall's opinion on the question. In all schools beautiful pictures were a most important aid to education. There were inside pictures and outside pictures. There was an old monastery at Brantôme, in the South of France, which had been changed from a monastery to a school. The building was so situated that looking out on one side they looked over the valley and the river, and on the other hand they saw the mountains. That was a grand outside picture. There were a number of lime-trees in the playground, and he had done all he could to persuade the schoolmaster to pour boiling water at the foot of the lime-trees, and plant cherry-trees, medlar-trees, and other fruit-trees instead of lime-trees. In the first place, children would see the blossoming of the fruit trees, which was very beautiful ; they would see the fruit grow and ripen ; and when it was ripe there was no better education for children than to tell them it was ripe but they must not touch it. It was with fruit as with the locked desk ; leave the children to themselves, trust them, and they would learn self-respect.

Mr. WHITE : I regret very exceedingly the tone and intention of Mr. Thomas's observations except that they give one an opportunity of saying a word or two on the other side. I am afraid that he must have grown up under very morbid influences, and I do protest that at this day we ought not all to aim at being Spartans or Stoics. Plato had a very different notion of things. He said, "Present your pupils with everything that is beautiful." If he were not a successful teacher I do not know who could be ; but I think that Mr. Thomas has taken the wrong ground entirely from the beginning to the end. He says that art ought to be the crowning of the edifice, and I should like not unnaturally to know how we are to arrive at the crowning stone unless the foundation be well laid ; and there is no foundation in art which can be well laid except by the constant contact of the influence of art from the very earliest years. It is perfectly true that we have an intuitive perception of art, of beauty, of music, and, I will even say, of knowledge and intelligence, and the same argument that would apply to keeping our children from that influence in school would equally apply to the step-by-step influence which the presence of everything good and beautiful has. It is not a mere question, either, of pictures and ornamentation in the rooms from which children would be able just to cull the rest without the technical and early teaching which is necessary to enable them to appreciate it to its fullest extent, although they may have a certain amount of intuitive knowledge of it. A child has an intuitive power of speech, but he has not the power of speech at all without the constant contact and influence from those with whom he associates from his earliest infancy; and I say that argument applies equally to art. It may be said, "But you forget that I have put a safeguard to that by saying that art should be taught by drawing. We will have drawing instruction, not drawings." I say that is not art. Education in art is derived from the constant contact with the beautiful.

Dr. MOUAT said that Mr. Thomas would banish pictures, he understood, from sick rooms and hospitals. Very well,

but he was afraid Mr. Thomas never could have been sick in a ward in a hospital, to experience the depressive effects of bare, blank whitewashed walls. He would not confine himself to that. He would tell a little anecdote on the subject to show how wrong such a view was. On his way home from India during the Franco-German war, he visited the city of Amiens during the armistice. There he found a large number of wounded men in the museum, which was also the art gallery of the city. The German soldiers told him it was without exception the most delightful sick room they were ever in, with such beautiful objects always before them. This incident alone disposed of the argument for banishing art and pictures from the walls of sick rooms.

Mr. FITCH said the true test of what Mr. Thomas had urged was to be found in personal experience. Were they not better for having been taught to admire what was beautiful? Did it not add variety and wealth to their own life to find that they understood pictures better than they did before? If it was true for them it must be true for the children coming in their schools. If they were able to carry out the projects so admirably devised by the Art for Schools Association, they might keep out of view maps, diagrams, pictures of the internal conformation of the body, and objects of that kind, until they were wanted. He believed that all this was not the true kind of decoration. He doubted very much whether the objects that were necessary for teaching ought to be constantly before the eyes of the scholars, and whether with regard to that it might not be true that familiarity breeds contempt. Bunyan's 'Pilgrim's Progress' might well remind them that it was of no use to go into the House Beautiful unless they had an interpreter. The advantage of having pictures for young children depended upon having somebody to guide them and point out to them the beauty or the meaning of them. They in London had great opportunities which he was afraid they did not all appreciate. They had in the National Gallery one of the most beautiful collections of

pictures in the world. How many teachers in London organised little parties of their scholars and took them round and explained them? Until they used such opportunities they had much to learn as to the best means of cultivating the love of art and beauty among the children of our schools.

Miss BAILEY (of the Doreck College) said that she was much struck by what had been said by the two preceding speakers. Without wishing to be one of those people who could agree with everybody, she thought they were both right. The first, however, had put the cause of art so strongly that it could not but provoke the rebound which followed. She agreed with the first speaker as to the general value of pictures, but she really came to hear what he considered to be their right use *in* schools. She had taught long in schools herself, and earnestly advocated all that was necessary to teach the elements of art there. It seemed to her that, by the plan described in the paper, textile fabrics, as well as art objects, were to be presented to the notice of school children. Considering how many of our people live by manufactures, this would be quite right. In fact, the variety of beautiful things which the Manchester Society proposed to show was very great.

She felt, however, that it was going a little to far to say that the study of art would deepen family affection. Affection between parents and children, and between husband and wife, had surely a stronger hold upon our nature itself than to depend upon art culture, though such culture did refine the national mind, and might very much affect our national industry. The great thing in art education was to steer between two things—cultivation of taste, and the introduction of needless luxury and of a variety of wants into the homes of the people. If we could cultivate the one and avoid the other, it would be a very happy thing to do.

She could not but think during the address of that French gentleman who had spoken how much elegance of taste the French people must have derived from their

splendid museums, and yet how much simpler the habits of living were among the middle and poorer classes in France than with us. She quite believed that simplicity in food, in habits of life, in dress, in furniture, was quite consistent with the possession of high artistic taste.

Before closing, she begged to say that she thought many valuable things had been named in the course of the meeting, such as the suggested planting of fruit-trees in playgrounds, to encourage both observation of nature and self-control of desire. Perhaps it would be allowed to her, as a teacher upon Frœbelian principles, to say what she would consider to be the right use of pictures *in* schools.

1st. *There should not be too many*, because that would be distracting to attention.

2nd. *They should sometimes be changed*, so as to bring Nature's own teaching before the children. If possible, the pictures should accord with the season. Thus, at the proper time of year, pictures of harvest or vintage work might be shown, so that the children might take home with them ideas and conceptions they could never have had before. She would illustrate the value of pictures by her own experience. When she first saw the Rhine, it did not seem new to her, for she had, long before, seen some very lovely pictures of it ; and as she went along, it did not diminish her enjoyment, that she seemed to have seen so much before under the artist's instruction, for he had chosen so many of the very finest views.

3rd. *Portions of the pictures, &c., might be copied by the children.* It might only be possible for them to copy a portion of a pattern or picture, but it would encourage them if they might imitate something done by a more skilled hand. They would the better realise what is meant by the saying, " Whatever man has done, man may do again."

In regard to the circulation of very valuable pictures among the elementary schools, as the reader of the paper proposed, she could only say that, as an Englishwoman, she would feel very sorry to see any picture from the National Gallery going round to all the schools in London,

even if she were so selfish as to wish that it might be lent to her own. She thought it unwise to risk spoiling that which could not be restored; but she supposed that there might rather be some idea of multiplying copies at a cheap rate.

She would mention some instances where she had seen beautiful objects of art have some influence in education.

She had had, some years ago, the opportunity of seeing several of the Liverpool Board Schools shortly after their opening. It was very beautiful and touching to see how the rough, miserable little children seemed calmed and improved, in some degree, by their very entrance into the large, handsome schoolrooms. She had begged, and she had found kind friends, who sent beautiful plants to such schools. Such kindness always seemed to be appreciated, and promoted an interchange of proper feeling between class and class in the community.

She had also seen one of the most beautiful looking and one of the best organised schools under the direction of Mrs. Fielden, at Todmorden, in Lancashire. There Mrs. Fielden had provided that the architecture, the convenience, the pictures, the desks, and everything belonging to the school should be all that could be desired. Miss Bailey had seen children of all classes, but she had never seen better behaved pupils, nor had she heard better reading in a good English accent than in that school in a factory town upon the Yorkshire and Lancashire moors.

The CHAIRMAN (Rev. Dr. GRAHAM) said he was glad the papers had been listened to with so much attention, and had provoked an interesting discussion. He begged to thank the audience for the time and patience they had given to the various speakers.

INFANT TRAINING AND TEACHING.

TUESDAY, AUGUST 5TH., 10 A.M.

Chairman: Mr. J. G. FITCH, H.M. Inspector of Schools.

WHAT FRŒBEL DID FOR YOUNG CHILDREN.

By Miss MANNING.

IT cannot be necessary in an assemblage like this to dwell on the facts of the life of Friedrich Frœbel; I will only remind you that this German thinker, writer and schoolmaster died in 1852, at the age of seventy. And, with regard to the young children under consideration, I shall at present simply state that the age referred to is from about three to six, and that children of that age in all classes of society are included. Before I try to show in what manner these little children, unconsciously indeed on their own part, are indebted to Frœbel, I am anxious to disclaim any intention of over-estimating him at the expense of other writers on education—as Locke, Comenius, Jean Paul Richter, Pestalozzi. When we are seeking to urge the value of certain ideas rather than to elucidate the source and history of those ideas, we are, no doubt, apt to identify them too exclusively with a single individual. The same happens in all fields of human work. It is often by accident, or from mere convenience, that we mention one name instead of more, and perhaps, by degrees, the others do unduly fall out of view. But while it is

true that Frœbel was only one in a line of philosophic thinkers—and no one could be more ready than he was to acknowledge what he derived from his educational ancestors and contemporaries—yet, I think it is quite just to give to him special prominence in regard to the training of children of three to six years old. And this partly because he did more keenly observe and more fully understand them than others have done, and partly because he invented certain practical methods which have rightly become associated with his name. Frœbel, therefore, naturally takes a distinct and a distinguished place among the benefactors of young children.

My subject is, what Frœbel did for these children. I wish to show very briefly: First, that he explained their characteristics. Secondly, that he indicated for them—1, *an ideal;* 2, *a position;* and 3, a *training;* and I shall conclude with a few practical questions.

I. Froebel explained their characteristics. He had much to say about the real infants—under three—as we find from his suggestive book "Mutter und Kose-lieder," and he had had wide experience with boys over the 3–6 age, but he also devoted earnest thought to the capacities and instincts and impulses of this intermediate time. He did what every one does who has to do with children, only his investigations seem to me to have been more thorough, more sympathetic, and more fruitful than those of most. In order to show later the bearing of his educational principles, I will refer to three points which especially struck Frœbel in the nature of young children. These are: 1, their activity; 2, their faculty of imitation; 3, their dependence.

1. As to activity, we see that a child from three to six seldom rests but in sleep. Its delight is to be in continual movement, and to experiment with its limbs as with a new toy. Hands or feet, or both, must be always busy—climbing, running, pulling, cutting, jumping; and the voice is in constant merry use. At the same time the child's senses are most lively. The little eyes and ears take note of all that passes, and everything accessible is made a subject of

touch. Thus knowledge is collected, and experience deepens, so that relatively, it has been well said, children learn more in their first five years than in any other period of life. Now the 3–6 children are often blamed for being restless and mischievous, but Frœbel comes forward as their defender. He fully approved that they should learn the art of keeping themselves still, but he explained that their activity is a natural condition of rapid healthy growth—an innocent effort to make themselves strong and capable. If they are troublesome, something is wrong, but the fault does not lie with the activity.

2. Then there is the faculty of imitation. We know what clever little mimics these children are. Whatever they see, whatever they hear, they try to reproduce. In the presence of anything that moves, their legs and arms cannot be quiet. Not a sound strikes their keen ears, shrill or deep, beautiful or discordant, but they must become its echo. The whole day long they are ready, if they are town children, to turn themselves into sparrows, horses, or policemen; if country children, into cocks, gardeners, or wheelbarrows. Their voices instinctively repeat the dog's bark, the milkman's cry, or any other sound that comes within their ken. They are always "pretending," but very honestly pretending, to keep shop, to write letters, to drive coaches, and to engage in all occupations for which they are as yet unfitted. Most unintentionally, but accurately, they copy the tone, the expression, the manner of their parents and nurses, and especially of their brothers and sisters a few years before them. By means of this useful faculty we mould their early habits much more than through direct commands. It enables them, as it were, to slide with the happiest ease into the social ways of those around them; and yet the imitation is no unimaginative copying. It results from children's strength of fancy. For the moment they throw themselves into another personality. Their muscles are flexible, their perceptions sharp; their whole existence is in the outward. It is thus pleasanter to them to be some one or something

else than their insignificant selves. But in the exercise of imitation the 3-6 children are not unfrequently pronounced "silly" and trifling; and here, again, Frœbel comes to the rescue, pointing out that this faculty is an invaluable magnet, which draws the children joyously along the uphill path of learning and of doing.

3. The third characteristic I have called dependence. The child of 3–6 cannot stand alone in life. Nor does it wish to do so. It has a sage consciousness that its own insufficiency must be supplemented by the experience, the skill, the wisdom of those who have lived longer, and it looks especially to its mother for this indispensable aid. By means of its clinging confidence in its mother, and its desire for her approving smile, the moral and religious sentiments awake, and it becomes obedient and gentle. I need not enlarge upon this point. No question belonging to human life is less disputed than the importance of the mother's early influence. Indeed, we might expect that here Frœbel could have to undertake no championship. But the relation, while recognised in theory, is not always carried out in practice, so Frœbel tried to recall neglectful mothers to their duties. He reminded them, too, that if they could not give all needful attention to these 3–6 children, they should call in only such helpers as could represent for the time the mother's judicious and tender care. He considered that the child is justified in demanding that during the 3–6 age motherly love should always shield and guide it.

Thus Frœbel explained, or, I might say, vindicated young children in respect to their characteristic impulses, urging that it is through activity in its various phases, through imitation, and through dependence on the mother's care, that the "baby" of two or three becomes changed into a capable, thoughtful little boy or girl of six. I will now try to show what he did for these children besides observing and comprehending them.

II. Frœbel indicated for children of 3–6 an Ideal, a Position and a Training.

1. I will refer to his *ideal* for them. There is a poetic ideal for young children, very pleasing and to a certain extent true, which represents the age as one of simplicity, of joyousness, of grace and of indescribable charm. But poets treat everything with regard to emotional effects, and their picture has more to do with the outsider than with the children themselves. Besides, it is evidently sketched from a distance. In daily life we find that children, with all their charms, can be selfish and wilful, fretful and exacting. Thus the poetical view is partly contradicted by reality. Now Frœbel's ideal for children was imaginative and yet true. He saw them just as they are, but his standard for them was high and beautiful, because he always connected childhood with manhood, and viewed their young age in the light of the future. In fact his intense interest in education was founded upon his love of goodness. It arose from his desire to promote the development of noble characters—from his wish to make the world better—and seeing, as he did, that life is an indissoluble chain, the first few years of that life became invested in his eyes with an importance, a dignity, a value, which regarded in an isolated way they cannot possess. He traced back every faculty, every capacity, to its earliest sign of activity in the young child, and he realised that the first start determines the road—the foundation affects the whole building. At the same time Frœbel perceived most clearly that every portion of existence has its own separate ideal. His favourite comparisons were drawn from the growth of plants. As there is in each stage of a plant's life a lovely completeness, so should it be with human beings. The infant must be an infant, the child a simple merry child, the boy a high-spirited boy, and so on. This conviction made Frœbel patient in his educational gardening. He could avoid forcing, because he dared to trust Nature, and thus was able to wait for the unfolding which would come in due course. His ideal for children rested, then, on the oneness of life, and on the typical distinctiveness of its steps and stages.

2. Further, Frœbel indicated for these children a *position*, by which I mean a sphere suited to their powers. Now the position of the 3–6 children is often anomalous and unsatisfactory. What do we find it to be? The nursery, in families where there is one, is their ordinary sphere, but how little scope it affords for their active imitative growing faculties! The cry, "What shall I do?" is more often asked than answered in the nursery, and scantiness of occupation leads to ingenuity in mischief. The nurse is continually assailed by the What, How and Why of these eager children, to which, from want of knowledge and press of occupation, her replies are curt and disappointing. Their treasured odds and ends are despised as rubbish, and it is generally assumed that good behaviour is the exception rather than the rule. The discipline is one of alternate spoiling and scolding, while nursery storms are of frequent occurrence. No doubt there are numbers of excellent kind nurses, with plenty of common sense, under whose rule the children thrive, but there are many more who look on steps in growth as steps in naughtiness, and who wish that all under their charge would sleep and play in baby fashion. The worst risk, however, of nursery life lies in its moral influence. The nurse may be very capable as to her ordinary duties, but who can ensure that she has judgment, tact, and refinement of nature, or such habits of speech and action as these wide-awake little ones ought to imitate? As an alternative, the 3–6 children are perhaps introduced into the schoolroom, but this also proves an uncongenial sphere. "Lessons" are not suited to their stage of growth, and by their brothers and sisters they are looked on as restless disturbers of the peace. Or, if they find a home in the drawing-room, it is to be treated as pretty playthings, and to be petted by strangers, without compunction or sense of responsibility. These children are perhaps best off in families where there is no nursery, because they then have more of a mother's care. But even mothers and elder sisters seldom recognise enough their claims to occupation, and their need of space and of out-door life. It is grievous

to see the listlessness and the fretful ways which are the result of confined and restricting surroundings. Again, by mothers of the poorer classes this intermediate stage is ignored, and almost as soon as a child can speak or walk it is utilised as a nurse to an infant brother, and it has to take a share beyond its strength in household work. In the ordinary Infant School, too, notwithstanding improvements, the discipline is, on account of the numbers, very rigid for such young children. They can receive little of the motherly care that they so much need; vivacity is almost necessarily discouraged. They have small scope for observation except in set object lessons, and not sufficient employment for their active hands. Though they may be far better off than in an empty fireless room, or than playing in the streets, yet the Infant School seems to me by no means thoroughly adapted to secure the growth of infant faculties. Very many children, thus, of every rank and degree are without an appropriate position during these three or four years. Frœbel, however, by his remarkable invention of the Kindergarten, showed what the position of the 3–6 children may and ought to be, whether at home with their mothers, or temporarily elsewhere.

3. Thirdly, Frœbel indicated for these children a *training*—I might use the word education if that word had not become so limited in meaning. Now Frœbel's idea for little children's training was freedom in the exercise of faculty under kindly guidance. We have seen what their characteristics mainly are—bodily activity of every kind, manual power, fancy, imitative action, and loving dependence, leading to moral development. All these characteristics, all their opening capacities should have room to expand and improve. We must not try to do the education of these children for them. They are educating themselves every hour and every day. But, said Frœbel, we must give them opportunities for investigation and for action, and we should surround them with loving influences, which are as sunshine to these little human plants. In the Kinder-

garten such aims are carried out. The teaching is not direct instruction. It trains the senses and the observing powers through handling and doing; it exercises the muscles and limbs, it takes advantage of the imitative faculty, it appeals to the fancy by means of stories and talk, it works through the affections, it draws forth helpfulness and self-respect. In consequence the children advance imperceptibly but surely in health and strength, in knowledge, in skill and in conduct. Frœbel devoted much thought to the devising and organising of suitable occupations and games for this early age, which are most successful in application. Still it is his *theory* of training which is the most important matter to bear in mind.

I have here to make two observations as to the Kindergarten. It is sometimes called a mere place of play. I think this accusation must come from those who have noticed it cursorily. The children are beginning to understand real work, and it is quite amusing to witness the earnestness with which the smallest in the class tries to induce its tiny unaccustomed fingers to weave a paper mat or to model a bird's-nest. If the children are happy in their learning and their doing, should that be a cause of complaint? Work ought to be pleasant in every age, and especially should it be made so for the little ones, to whom merriment is as essential as fresh air.

Again, the Kindergarten ought to be looked on as a supplement to home-life, not as a substitute for it, except indeed in the case of those neglected children in whose homes bad influences prevail. For a part of the day it offers advantages which even the home does not. Owing to its gentle discipline, its large family, its practised staff, it can do in some ways more than the home alone can do, as a preparation for school and for life. But one of Frœbel's objects in founding the Kindergarten was that it might enable mothers and young girls to gain hints as to the training of children. And in any case, unless home influences are in harmony with the teacher's efforts, her work is disappointing and arduous, and in a measure thrown away.

Frœbel then indicated a training—an education—for the 3–6 children, singularly and carefully adapted to the main features of their growing age. By successive steps (for in the Kindergarten each year is dealt with as on a separate level), the mother and the teacher help them to make a real and steady advance in all directions.

In conclusion, I should like to suggest as a point for discussion: Why have not Frœbel's methods been more widely accepted and acted on in England? It would be very satisfactory if this Conference could throw some light on the matter. Notwithstanding the increased recognition of Frœbel, notwithstanding that Kindergartens are multiplying, and that mothers approve their effects, notwithstanding that the Education Department and some School Boards have given encouragement in this direction, yet the system is looked on still in some quarters with a sort of doubtful distrust. Why should it be so?

It may partly be accounted for by the fact, which must be granted, that some unsatisfactory Kindergartens exist, and that there are at present comparatively few well-trained teachers. But with all allowance for this and other hindrances, amongst which may be reckoned the necessity for economy in schools dependent on public funds, how is it that Frœbel's principles of training are not more fully taken as a basis of education for the millions of children whose early years are so often wasted or misapplied?—How is it that educated mothers still leave their children to the care of uncultured nurses?—How is it that Infant Schools do not afford more suitable development to their tens of thousands of little pupils, and thus prepare them more effectively for the next—the school stage?—How is it that all managers of institutions where young children are collected do not determine to brighten the young days of these children, and to fit them for the duties of life by a training suited to their powers?

The question is a very simple one, and it ought to be brought to an issue. Are children's self-educating methods right or wrong? If right, let us follow their

indications ; if wrong, let us continue to neglect or to work contrary to them. One could almost wish that all nurseries and Infant Schools, and even all Kindergartens, were suddenly swept away and forgotten, in order that those who direct early education might place it upon a new basis. The educational views of the present day are theoretically in favour of natural rational training, and I fully believe that the reconstruction would be arranged in accordance with Frœbel's ideas. In that case, young children would have to acknowledge a debt of gratitude not only to their German benefactor, but to those who in their own country had enabled them to prepare during a happy childhood for a life of developed capacity, right conduct, and useful action.

DISCUSSION.

Madame DILLON, Inspector-General of Infant Schools, France, said she agreed with very many things that Miss Manning had said.

Mr. SEVERN said he should like, with permission of the meeting, to describe a Kindergarten lesson or game which he regarded as singularly beautiful and instructive. He quite agreed with Miss Manning that a curious distrust of the Kindergarten system still existed. He could not account for this state of things, and for his own part had done all he could for many years to assist its introduction. He had taken people to see the beautiful lessons he was about to describe, and they were always intensely struck with them, and had afterwards sent their own children to be instructed in accordance with this method. It was matter for regret that some of these beautiful lessons had not been described in the newspapers, as it would help to make them better known, and it was with this object he wished to describe this particular lesson. He saw it first at Miss Wüstney's School at South Kensington, where his

own children were taught most effectively to play at lessons. The game in question, which was very popular with children, was called "Our Solar System." A boy, big for his age, and with a radiant face, represented the sun. He held a high pole in his hand at the top of which silk ribbons were fixed, of different lengths, to represent the relative distances of the planets from the sun. In reply to the mistress's question as to which planet was the nearest, all responded at once "Mercury," and the happy throng of about thirty or forty children arranged in a circle sang a verse descriptive of the planet. A little Mercury then stepped up to the pole and, taking the shortest ribbon, revolved round the radiant orb of day. Miss Wüstney then asked which was the next planet, and they all answered "Venus," without the slightest difficulty; his own pretty little girl revolved round the sun, with the next longest ribbon, in her proper orbit. Then came Earth and Mars, the latter being represented by a most valiant little boy between three and four years of age, who was evidently determined to be a Wolseley some day. All the other planets revolved in the same way, each verse sung being descriptive of the motions of the particular planet to which it related.

Mrs. HOLTON said that she wished to make her acknowledgments to Miss Manning, as it was owing to that lady that some ten years ago she commenced to study Frœbel's theory of the Kindergarten. She had noticed that, though there were many believers in the system, very few had faith; making the distinction between belief and faith, as pointed out in Archdeacon Hare's sermons. They must have both faith and works, but it was faith that gave them power. This she had observed, and it was confirmed by the experience of Miss Manning, Fräulein Heerwart, and others.

Mr. EDWIN CHADWICK, C.B., said he wished to say a few words in reference to the difficulty of obtaining teachers. The progress of the Kindergarten system had been greatly impeded, owing to the difficulty of getting teachers of

the right quality for it. He recently paid a visit to a large district school, and the mistress of the infant school, a very able teacher, said that in the case of children of three years of age, the age at which they were brought there, she could tell the sort of teacher they had had by the character impressed on the child, and that the common teaching was grievously inferior. At this early period the highest order of teaching was required in order to create beneficial impressions, but people in their ignorance appointed the cheapest persons that they could get, and increased the difficulty of subsequent teaching by creating the necessity for the removal of defects which ought never to have been allowed to exist. Ignorance of the requirements for infant teaching prevailed, he believed, very extensively throughout the country. Infancy was certainly the most impressionable period of life, and required teaching of the highest order. He thought it especially desirable to seek to obtain the services of ladies for the performance of this duty, on account of the imitativeness of children at that period. There was just another point with respect to teaching which he wished to mention, and that had reference to the quality of the books provided. This was a matter which he thought Madame Schrader would have mentioned had she been there. Experience showed that nothing should be forced upon a child which had not been found to sustain attention by reason of its own intrinsic interest. A friend of his, the late Mr. Horace Grant, of whom he had given a memoir, gained great instruction in respect to this matter by testing the receptivity of children of different ages. He found by this means that the ordinary lessons were in many respects inapplicable, and he had in consequence to change his whole order of teaching in order to accommodate or to meet the receptivity of the children. He thought that the rule should be made that no book should be promulgated which had not been tested in that way; nothing should be admitted which did not sustain attention by its own interest. But most certainly the character of the teacher should be considered in respect

to the imitativeness of the child, and its manners, and it would be found cheap to get the very best capacity and the very best teaching power that they could,—namely, that of the lady. There was great ignorance on the part of guardians throughout the country, and this required correction. The best was the cheapest.

Fräulein HEERWART remarked that she agreed entirely with all Miss Manning had said, and she would thank her in the name of many friends for her valuable paper. With regard to the Kindergarten method, she agreed with Miss Manning that in many cases it should be commenced entirely afresh. The Kindergarten ought to be based on the model which Frœbel had put before them; but the Kindergarten teacher ought to be a model too. Mr. Chadwick had spoken of the difficulty of obtaining teachers. It was no doubt a common experience that Kindergarten teachers were not always what they ought to be. She thought they ought to be as cultivated and as motherly with little children as possible. The Kindergarten should be a model institution in which might be demonstrated how little children should be cared for, the little children who are so very tender, so very helpless, and dependent upon us. The Kindergarten ought to be open for the instruction of young girls, nurses and nursery-maids, where they might learn how to treat and how to train the children, to young mothers and to all who have the charge of little children. It was not so much a question of education in the usual sense, but of learning how to care for the tender and weak children. There all women must lend a helping hand. Every one who went into the presence of a little child ought to look up to the child as our Saviour Himself had looked up to the little children. If they looked down upon the children as those who committed mischievous acts and as if they were a nuisance and a trouble, their whole treatment of them would be fashioned upon this opinion. Every one who went into a Kindergarten, and stood in the presence of a little child, ought to look up to the child. The teachers of the present generation had, it must be re-

membered, to lay the foundation for the next generation, and had to instruct those who would be the fathers and mothers of the future. Under these circumstances she commended the action of that schoolmaster who, when he went into his schoolroom and saw the little children, took off his hat, in order to show how much he respected those whom he had to educate; and no one was fit to train little children unless he had this opinion of them. If the teachers of Kindergartens did not look at their children in this way it would be better to sweep these institutions away, and begin education on right principles.

Miss DAVENPORT HILL (member of the London School Board) thought it possible to account for the slow growth of the Kindergarten teaching, because, being a new idea in this country, it had required time for development. She knew but little of the details of Kindergarten work under the London School Board. For many years the Board had worked steadily with a view to its promotion. They appointed a lady-superintendent of method, whose duty it was to visit the infant schools and to see that the Kindergarten system was properly worked as far as she could. But unfortunately they had suffered from the want of good teachers. In some of the training colleges instruction was now given in the Kindergarten system, but a few years ago it was only imparted at one, namely, at Stockwell; and therefore the teachers had to study the system under the superintendent, and to pass a yearly examination in order to claim a certificate. This they must do while they were teaching in their schools; they did not come prepared to teach, but had to learn the system as they went along, and therefore it was not astonishing if they did not learn it very well. Another reason why the growth of the Kindergarten had been slow was that hitherto the Government had not recognised it as a subject for a grant. Grants had depended too much on the passing of the children through the standards, and until last year the salaries of the teachers had also depended much upon that, and it could not therefore be wondered at that their great

idea had been to get the children to pass the standards. She had heard teachers say that the Kindergarten system was very delightful, but it did not assist the children to pass in reading and writing. Now, she was happy to say that the School Board had made a great change, and of all the reforms which had been made of late years, she believed the greatest was that the Board no longer paid by these results, but by fixed salaries. The teacher's income no longer depended on the passes made by the children. This change was only made last December, and the arrangements were not yet completed; nor had teachers, she thought, yet realised the difference it would make to them. In the future they would value the Kindergarten system more, and they would have more freedom for exercising it. The changes recently made by the Department gave the Board more freedom in this respect than they had hitherto possessed. The effects of the change which would follow the introduction of Frœbel's system could not be ascertained for three or four years. Her own opinion was that the children would read and write and do their sums just as well as they had done under the forcing system heretofore existing.

Miss BAILEY said she wished to point out what she thought to be some of the reasons why the Kindergarten system had not made as much progress in England as might have been expected; and yet she felt some fear in so doing, because the Kindergarten system was, no doubt, very disturbing to what might be called the "vested interests" in education. In the first place, this system called for the professional training of teachers in a very decided way. Next, it denied that mothers know by instinct how to bring up their children. It taught the mother the way to train her child, and how to study it, as nature's child and God's gift; it forbade her to regard it as a plaything, to do as she liked with; and it taught also that her task involved all the responsibility of training an individual to be a blessing, and not a scourge, in the world later. In our great public schools the professional training

of teachers seemed but little valued yet. She would not be so unjust as to suppose that the teachers there were chosen merely according to their University honours, though these were usually the only things much spoken of before the arrival of a new master, and one heard but little about his skill in teaching. She had once or twice witnessed errors in method on the part of a teacher with high University distinctions, that the veriest tyro in the Kindergarten system would avoid. She then instanced a lecture addressed to pupils about twenty years of age, but unacquainted with any language but English ; and she pointed out how the lecturer sacrificed time and his pupils' respect by writing up Greek and Anglo-Saxon quotations that were suggested to his mind by the subject. She was therefore certain that it would be a national benefit if the choice of teachers were made to depend upon skill in teaching, quite as much as upon scholarship. The most devoted students were not, as a rule, the best teachers of the young, for they were often too absorbed in their attention to one thing to possess that quick, active sympathy which deals with every member of a class. Of course there were special exceptions ; and she had heard Professor Huxley spoken of, for one, as a born teacher. Again, in our elementary schools, the practice of payment by results had made teachers shy of attempting the careful and minute training of the Kindergarten method. She said, too, that Kindergarten principles would also condemn a good deal of the literature written for children. Teachers should sympathise with a child's love of fun, and a strong sense of humour would often give patience over little troubles and mistakes in class ; but it was unwholesome for any child to read stories of some child hero or heroine, who was simply a pert little nuisance. If we felt it to be unwise to praise or pet a child, so as to foster vanity or pertness, we ought surely to be careful as to what books we gave them. Perhaps, too, our national disposition to let established plans alone had stood (she thought) in the way of the Kindergarten methods in England. She often found that

we English did not want to study the first principles needed to produce real improvement, and we contented ourselves by thinking of our wonderful energy in patching up this or that defect. She hoped the English people would now study the Belgian part of the Educational Department of the Health Exhibition, and they would find there the strongest arguments in favour of Frœbel's methods of teaching. She was sure that they had enough spirit and intelligence to apply the lesson lying there, if they would only consider it. She allowed that Kindergarten work was often done at too great an outlay, and said that extravagant expense was by no means sure to secure sound and correct work. She would be glad if some study and practice of Frœbel's principles of teaching could enter into the closing part of a well-educated girl's school life, and this was what Frœbel himself desired. As a working woman, she set a high value upon the various channels of learning and employment so generously thrown open to her countrywomen in these days; but she thought that, for many girls, it would be better to sacrifice some part of their mathematics in favour of Kindergarten study. We might then hope to meet with more parents who understood their responsibility and fewer of those people who declare a right to do as they like with their children, without any regard to the injury of the country through their badly-trained offspring.

Mr. SONNENSCHEIN said that some ten years ago he endeavoured to get the Kindergarten system introduced into a large educational establishment in London, and was met with this curious reply: "Oh, my dear fellow, you know, the Kindergarten system is something foreign—it is exotic; it does not suit the English mode of life at all! Our mothers are too proud of their children. They are not Germans, and they do not like to delegate the work of education to strangers." So the Kindergarten system remained not a part of the curriculum. Another reason which rendered the introduction of the Kindergarten system into England difficult was that the principles of Froebel were not understood, in spite of the teaching and efforts of the Frœbel Society. It is

believed that Frœbel wanted to teach children to play, and one speaker had described a very pretty piece of child's play in the planets moving round the sun, but that gentleman must forgive him for saying that that was not Frœbel. In this country we were haunted by certain fatal prejudices. It was a superstition that the child must learn the three R's—reading, writing, and arithmetic—and it was believed that no education could be given unless these three subjects were mastered. When he was in Zurich he examined the magnificent system of teaching introduced by Herr Beust, who had made very great innovations with regard to all branches of study. Reading he did not teach until his pupils had reached eight years of age. A great scholar once complained to Herr Beust that his son, who was seven years of age, could not read, though he knew all about decimals, having been brought up under the metric system. The professor said that if his method were disapproved the children could go and he would return the fees, but the scholar, after mature reflection, was content that his son should learn to read later. Another difficulty had reference to teachers. Teachers who thoroughly appreciated Frœbel were rare. Then, again, those who had been trained abroad forgot this one essential characteristic; they were trained upon German children and had to come here and teach English children, who were more high-spirited, better fed, and more talented. The English children were considered by a great authority to be the most talented in Europe, and therefore the German system must be adapted to the more rapid progress English children would make. There were also material difficulties in the way. Many persons who spoke of the efficiency of Frœbel's system did not adopt it on the score of expense. Again, in England climate offered very great obstruction. It was desirable that children should attend the Kindergarten regularly, and those living at a distance would not be sent in bad weather, and in any event would require their nurses to accompany them. The difficulties were, therefore, both pecuniary and domestic, and he did not see

how they could be thoroughly overcome. The Frœbel Society must, however, persevere in that good work, and must not weary in well-doing, but endeavour to spread their principles more and more. It would be a great loss to the children of this country if the Frœbel system were not carried out.

THE KINDERGARTEN IN RELATION TO THE VARIOUS INDUSTRIAL PRODUCTS OF A COUNTRY.

By Fräulein Eleonore Heerwart, M.F.D.H.

The Kindergarten system of education is generally understood to apply to children of four to six or three to seven years of age, but as these years form a portion only of the life—a link between early infancy and youth—the education of children during this time is only a part of the whole course. No one now denies that education begins with the cradle and continues after the child is seven years old; it is understood that the impressions of the first seven years are lasting, and that the formation of character begins early.

Comenius, Pestalozzi and Frœbel assigned to the mother the important office of commencing the education, and those who follow in her steps are agents, no less important, in moulding the child's disposition and turn of mind. All the child's powers come under the notice of the first educators, who, therefore, must study what the "gentle hints of children" mean. Sometimes these hints are signs of mental life, or indications of the will and affections, of physical strength or weakness. In any case they teach us what the child requires and *we* are the learners.

The mother cannot always be with the child; others help to influence it, and there is the Kindergarten either at home or near at hand where opportunity is given for the

complete unfolding of the child's nature. The assembling of little children together, tends, 1st, to preserve their happiness, simplicity, and health ; 2nd, to let them unfold their various powers without outward pressure ; and 3rd, to prepare them for the next stage they have to enter upon. The means for this process of education must be suitable, and these we have received from Frœbel in his "Gifts and Occupations." They are simple and correct, and are thus calculated to be a basis for what the child has to learn afterwards. They contain not only the elements of future school studies, but also of all kinds of work, for they consist of the same materials as are used for works of art and industry. Even a superficial observer in a Kindergarten sees a variety of employments that are within the reach of children's capabilities ; at any rate, he cannot help seeing that the children are happy over their work and play. But let a parent speak who has sent a child regularly to a good Kindergarten ; his judgment will be a more accurate one—something of this kind : "My child is stronger in health since he began going every day, summer and winter, to the Kindergarten, since he learned to play gymnastic games that stimulate his physical powers ; he now comes home full of information about the objects he has handled and the new hymns and stories he has learned ; he finds plenty to do, he can turn a piece of paper into a windmill, a table or a pretty symmetrical figure, he can sing and play with his little sisters, his memory is improving, &c." And what says a teacher who receives a child from a Kindergarten? He finds that the new pupil's hands and eyes are to be depended on ; that he is eager to learn and ready to work, that he can listen and attend, and understands the meaning of many words. Artizans who have sent children to a Kindergarten look closely at the work that is brought home, for they recognise therein the elements of their own handicrafts. Many a workman has reason to wish he had been in a Kindergarten when young, and many an artist has had to overcome by years of practice those

obstacles that a flexible hand and a trained eye would have easily mastered.

The historian will see in the child's first efforts a resemblance to the crude attempts of nations; he will watch the stages of development as history has witnessed those of barbarous tribes, who have afterwards excelled in arts and industries.

The philosopher will trace his own lines of thought to the early impressions of his childhood; he will recognise in the child the working of the expansive mind; and if he attaches importance to the healthy growth of the body, he will not expect that the child's intellect should be out of proportion to his physical powers. Those persons who know not the manifold nature of the child, unduly develop one faculty to the detriment of another.

The pedagogue, who is parent and philosopher at the same time, sees the importance of harmonious development, and he pleads for sufficient time for the unfolding of all the faculties.

Thus the visitors to a Kindergarten will each find points to interest them; they will see that, while the child plays, it learns; it makes acquaintance with tools and materials; it sees the result of its own efforts, and feels happy, because it is conscious of progress; it sees the fitness of certain shapes, and is delighted with symmetry, order, and neatness. Success in small efforts produces joy and the wish to improve; idleness, with its evils, is no longer heard of.

Work is an outlet for ideas, and it establishes harmony between knowing and doing. Play, too, is a means of expression for what is in the child's mind. If you want to know children, watch them at their play; their dispositions and their notions are portrayed therein.

True, the process of education is slower if you let the children act out what they know, instead of letting them learn from books and from people, thus accumulating knowledge by being simply the recipients of it. In this way they may learn much; but they will not become practical

men and women in these days when doing is required of the learned and the unlearned.

If the child has received talents and powers, it also needs opportunities to make use of them; if it has learned to *know*, it must also learn to *do*. Knowing and doing ought not to be separated; the one would be isolated knowledge, the other mere machine work; but, if combined, they help to make a complete man.

Activity is natural and necessary to mankind; it means progress, life, and it shows itself early in the child, who, by grasping and seizing hold of an object, by stretching the limbs, develops physical power and places itself in contact with the outer world. This is *one* point on which Frœbel dwells, namely, that their movements should be encouraged, regulated, and made useful. But how seldom are parents and nurses conscious that these movements are hints indicating that the child needs some one to support its moving limbs, some one to talk and sing while it moves. Few remember that the child needs an object for its empty hand, in order to exercise and strengthen it; empty space is not sufficient.

Frœbel saw that something educational must be done for the smallest child; and when parents and nurses understand that whatever they do should designedly further the child's development, they will find it easy to direct their attention to it from the beginning; great will be the difficulty if they wait till the precious powers have run wild, and must either be checked or roused by strong means in later life.

Frœbel teaches us in his book for mothers how to commence the early education, and he provides us with the means. The first of these is a ball, in which form, colour, and movement are combined—the very characteristics of the objects that surround the child. Later on he provides materials out of which something can be made, for he believes in the creative power of the human being, a gift inherited from the great Creator. Why should other people—strangers—make the toys for children? If they were made

in the presence of the child there would be the advantage that the child sees *how* they are made—then its powers of imitation would come into play.

Who does not know that a child will say, "Let me do it," when it sees the father water the garden, or the mother make a pie. Imitativeness is given to the child—it is a Divine gift, a great power that helps to move the current of life. Why do some people kill it by preventing the child from imitating in play, as it will some day have to do in actual work?

The child is a link in the human chain, which chain it will have to strengthen by its own efforts when it takes its place among grown-up people. It is provided with organs of sense, and with that wonderful instrument, THE HAND, to enable it to connect itself with the outer world. It takes in impressions in order to reproduce them in some form or other. Every work of art, every day's humble task is a proof of the productiveness of the mind.

Work is our privilege. The child must be prepared for work, that it may not appear to him a trouble, as is the case with those who have no mastery over the material, and no control over their hands. There is beauty in the smallest work well executed, and children can do small things well, if taught.

Frœbel says: "There are three reasons why we should work; first, God works, and His works are perfect, the great as well as the small; secondly, Christ worked, every day He did some good, and those who bear His name should follow His example; thirdly, God has endowed us with talents, has given us opportunities, has granted us time. It would indeed be a sin if we did not work. The child too has all these gifts, only in a smaller degree; its work is called play, which, nevertheless, is important; it feels it has a share in the busy world, but uses its opportunities for activity unconsciously; it plays at the sea-side, in the garden, in the street, in the house, and everywhere the little hand is easily filled. With guidance it learns to do better, and with every improvement its powers grow. Let no one

despise first attempts, they are the starting-points of those wonderful structures that we admire in every country.

It is therefore a great step, which Frœbel's followers will greet with joy, that at this International Health and Educational Exhibition, the child's work has found a place amidst the nation's work. The future artizan and artist is represented. The "child is father of the man."

In various departments, foreign as well as English, the small attempts of children are recognised as forming a link in the chain of human efforts, artistic, practical, and useful. The little fingers have done what they could. The industry and patience of the child are exhibited side by side with the perseverance and progress of the nations. It is not meant that the child should be early employed in factories, by turning machines for the sake of cheap labour, but that it should have opportunities of unfolding its powers and of being happy over productive play.

Neither luxury nor comfort is the aim of this Exhibition, but beauty, usefulness, and the promotion of health; in all these the child is included. If exhibitors and visitors are pleased with the result, no less pleased are the children who contributed their mite to this International Exhibition.

Frœbel's words have come true. The child's play is no foolish trifling; it has a deep meaning.

The promoters of this Exhibition have done right in admitting children's work, they have given public recognition to the value of small beginnings, as illustrated by the Kindergarten system. In it they see the foundation of the nation's industries.

It is easy to trace the elements of school lessons in the various Kindergarten occupations, for we see that by means of number, form, and colour, the way is paved to reading, writing, arithmetic, needlework, geography, geometry, history, natural history, freehand drawing; but it is also evident that every profession and art is represented in Kindergarten work, for they too are based on these simple elements.

Place what the child has formed in clay side by side

with the potter's vase and the sculptor's work, and the connection is at once established. Form is the chief element in these gradations. The plastic material may be of various kinds—butter in the dairy—dough at the baker's. The child imitates them with sand or clay. The practised hand can give form to any shapeless mass ; from soap, wax, sugar, dough, chocolate, upwards to metal and Carrara marble, we see the progress of mind over matter. The child soon imitates this kind of work if you give him soft material to suit the soft, weak fingers. Give him the raw material, as Nature does, and something will soon be produced. Many hands remain awkward and stiff from want of early practice, which would have given mastery over the material. How many persons are discouraged and disheartened over their work, because they have no power or facility ; how much clumsy work is done, how much time lost, when stiff fingers attempt work that would otherwise have been an easy task or a pleasure.

The child trained from the first according to the principles of Frœbel (who held, together with Locke and Rousseau, that necessity is the mother of invention), that child is not spoiled nor confused by many toys of miscellaneous shapes ; he has received clear impressions from a few simple, concrete forms, namely, the ball, the cube, and the cylinder, called the "second gift ;" an accurate picture of solid forms is produced on his mind, so that he can recognise them everywhere in his surroundings ; they will be starting-points for other forms which he has to learn by-and-bye. This clearness is, in Frœbel's opinion, of great importance ; it has also a moral bearing, for the child is not exacting, but is content to make the most of small means.

The solid form is the most tangible to the child, and the most easily distinguished by him ; less tangible are the surfaces or planes which, in systematic order, come next to the solids, as they are their faces or parts. In the Kindergarten they are represented by square and triangular tablets, which are in right proportion to each other, and

accurate in angles ; these tablets of coloured wood or cardboard can easily be arranged into symmetrical designs, and, as such, they remind us of inlaid wood and stone-work, of mosaic, floor-cloth, carpets, and wall-paper. Architecture, with its decorative art, with its mason's, carpenter's, and glazier's work, has its elements in Frœbel's occupations, and why ? Because the material which he uses is accurate and geometrical ; it is not fanciful and confused, but regulated by a mathematical plan, similar to that which the bee and the spider instinctively follow out in their structures.

The crystals of snow and of precious stones were in Frœbel's mind when he provided us with such means of guiding the children's inventions and combinations, thus establishing a harmony between our teaching and the beautiful forms of God's creation. Indefinite and fanciful materials would not lead us direct to the source of beauty and of truth. The sense of the beautiful is early roused, and the child soon appreciates order and fitness of arrangement in form, colour, number, and sound.

Good taste will become natural, and will not have to be acquired by later efforts, neither will bad taste have to be corrected. Nature's forms are true ; that is why Frœbel offers them to the child ; moreover, he follows Nature's laws when making use of them ; he builds his forms of bricks *so* that they seem to grow out of each other ; he adds nothing but what is in the nature of the material, or can be developed from it. Thus his Kindergarten occupations are not a heterogeneous mixture of toys like those in a toy-shop, but a logical sequence from the whole to the parts and then from the parts to the whole again.

Just as he derived the surfaces from the solids, he derives the edges or lines from the surfaces, and these edges or lines he utilises again in various ways ; we see therefore among the Kindergarten occupations the line made use of in his course of drawing, or more tangibly illustrated by threads and sticks to make it plain to the power of vision and to the mental stage of discrimination in the child. The concrete must precede the abstract.

Paper-twisting, stick-plaiting, stick-laying, the jointed lath, pea-work, ring and thread-laying, drawing and sewing on card, bring the lines into every position and proportion before the child who handles them itself; hand and eye are trained; it makes its own discoveries while measuring, arranging, combining the given material. The beautiful outlines of leaves, flowers, animals, as well as of works of art, are henceforth a delight to the child.

As Frœbel dealt with form, so he deals with colour, sound, and number, for which he devises occupations and opportunities. The child early distinguishes objects by their colour, and delights in it; from want of cultivation, however, the power of distinguishing colour is often weakened or perverted, and bad taste, if not colour-blindness, may be the consequence.

Frœbel wishes to prevent this by offering his balls of pure and simple colours from the first as they leave a clear impression upon the child's mind. The first play has therefore its educational value, although it seems a simple amusement when the movements of the ball are accompanied by the rhythmical movements and by the simple song of the mother and the child.

Later on the child chooses colours for mat-plaiting, sewing with wool, or it mixes them when it paints simple designs and outlines of objects. Colour-blindness may thus be early detected and possibly checked. This would certainly be one advantage, but the application of colours to such designs as lead to decoration, to painting as an art, will certainly be of great value to every child; and if every one cannot become an artist in colour, every one may at any rate be led to admire the hues and tints of a landscape or the harmonious arrangement of colour in works of art. Why do we pity a blind person, if it is not that he is deprived of the pleasure colour affords to the eye, and of the power of distinguishing objects by their colours?

A closer survey of the Kindergarten occupations may help us to appreciate their value in relation to the work

that can be derived from them, and we hope we have shown that Technical Education is closely connected with them. The Kindergarten, viewed in this light, commends itself to the notice of employers in every country. "The difference between the work of the adult and that of the child lies in the more skilful execution and the more matured thought of the adult, as well as in the texture of the material used; but it is easy to trace the connection between the element and the finished design. To a child, we give material not only softer and more pliable, but in smaller quantity or of smaller size; such material it can easily handle and master, which would not be the case if it was too stiff, too large, or too fine, or in fact unmanageable for the little fingers." (See: "The Aim of Kindergarten Occupations.") By introducing the Kindergarten occupations into schools, and graduating them according to the ages of the children, we help to counterbalance their mental work, and to illustrate many abstract lessons by the manifold uses of the concrete materials. Hand work would rise in the estimation of many pupils if they themselves experienced the difficulties and the beauty of it. Many hours that would otherwise be spent in idleness may be filled by some manual employment, and much additional happiness and health may be procured by industry.

DISCUSSION.

Mons. CH. BULS, Burgomaster of Brussels, and Ex-President of the Education League of Belgium, who spoke in French, said that he was grateful for the indulgence accorded in allowing him to speak in his own language, because he would feel greater confidence that he was expressing his exact ideas. He thought the Conference might be interested in knowing what were the difficulties he had encountered in the early efforts made to establish Kindergarten schools in Belgium. The greatest difficulty

experienced was to find competent teachers. It was scarcely possible to go to a young lady teacher of good education to request her to descend to learn afresh in order to become a teacher in the Kindergarten. In order to overcome this difficulty, and after having made a journey to Germany with a view to making himself acquainted with the spirit of Frœbel's method, he commissioned a German lady to organise a course of lectures, and to inspect all the Kindergarten schools in Brussels. Thanks to this measure, a body of Kindergarten teachers was formed, and it was obtained from them that they should apply the true principles of Frœbel's method, and not only the exercises mentioned in the handbooks. It was difficult to do without these handbooks, but teachers must be made to understand that they must be considered simply as illustrations of the method to be followed, and not as invariable rules. The application of Frœbel's method did not consist in passing from one toy to another, as the handbooks set forth, but in awakening and developing the children's intelligence by appropriate exercises. The teacher must herself invent new exercises, and turn to the best account local circumstances and habits to train the power of observation of her young pupils. The town of Brussels had made arrangements with the Government for the foundation of a training school, the building for which had just been completed; but the fall of the Liberal Ministry had imperilled this scheme, and the partisans of the people's education must be desirous to see the end of the clerical *régime*, which all their large towns bore with impatience.

Mr. H. KEATLEY MOORE said there appeared to be a general feeling that the Kindergarten made but slow progress. One reason for that which occurred to him was that the system had a foreign name, and English people shrank from everything foreign. Many of the details of the Kindergarten were actually foreign, not only in name but in nature. M. Buls referred in his speech to the undesirability of thus adhering to the exact methods and

lessons appointed by Frœbel. One must first be penetrated with the principles which Frœbel advocated, and then seek to adapt them in an appropriate manner in accordance with the spirit of the institution, inventing in England, for instance, games which would appeal to English children, and not utilising such as were appropriate only to German children, though Frœbel himself had invented them. He had often seen in the works of a highly distinguished lady the word Kindergärtnerinn used to denote a teacher in the Kindergarten, and such things tended to make the system appear even more foreign than it really was. Mr. Moore also pointed out that no really good translation of any of Frœbel's works existed, and that author was, therefore, only to be studied in the original, and though no doubt many of the audience were sufficiently acquainted with German for that purpose, so involved and mystical was Frœbel's style that he doubted if there were many who would understand and appreciate him upon first reading. They must not, however, lose heart, and in due time they would no doubt get an English edition of Frœbel. The English were to a great extent a slow people; but he would remind them in this connection of the Italian proverb: "*Chi va piano va lontano.*" In respect to the Kindergarten, things in this country were certainly moving, though slowly, and not only had these principles taken root in regard to elementary education, but they were also penetrating into the higher departments of education. In educational matters we were adopting Frœbel's principle of growth from within instead of mere cramming in of knowledge from without as one would pour water into a glass from a bottle. Even if the Kindergarten as yet did not flourish in this country we should still owe a debt of gratitude not only to Frœbel, but to those ladies who had endeavoured to develop his system in this country. Let them wait until our own countrywomen so faithfully trained by these foreign missionaries were able to come forward with something especially adapted to the children of this country, and then we should see an English Kindergarten,

which he hoped and believed would outtop all the Kindergartens of the world.

Miss EDITH LUPTON (Bradford School Board) regretted that she had not heard the whole of Miss Manning's paper, being, as a school manager, very anxious that Frœbel's system should obtain in the schools with which she was connected. For her own part she must confess that she represented the national ignorance on the matter, having never studied it, and having only paid one or two very cursory visits to schools where the system was established. She wished, however, to make a few remarks as to what was said by Miss Davenport Hill in reference to the difficulty of introducing the Kindergarten system into Board Schools. No doubt one of the principal difficulties that had had to be encountered was, as Miss Hill had said, the principle of payment by results, which insisted that every child of a certain age should do the same as every other child of the same age. That seemed to her (Miss Lupton) after listening to the very able papers and addresses which she had heard since she came into the room, to be the very opposite of Frœbel's system. She sympathised very much with the idea that every child was to be regarded as an individual, and with the view expressed by Fräulein Heerwart that the teachers should look up to the children instead of looking down upon them as poor little things that were to be raised up to the Government standard. Under the Kindergarten system the child appeared to be looked upon as an intelligent being, but that system could not be worked out so long as every child was expected, in accordance with the Code, to reach a certain standard of attainment by a certain age. She had not had the opportunity of seeing the work done upon the Kindergarten system in connection with the London School Board, but Miss Davenport Hill appeared to take a hopeful view of what could be accomplished. She (Miss Lupton) could only say that if they were able to accomplish anything good under the present system, she very much envied the members of the London School Board; and she very

much wished that members of provincial Boards were in the same position. No doubt in the immense, wealthy, and educated city of London the question of rates was not so much felt; the Board could pay a great many teachers who did not earn grant without making a perceptible difference to the rates; and consequently they were comparatively independent of the Government grant. But Bradford was by comparison a small town, though it contained some 200,000 inhabitants, and the question of rates was there a burning question, and any School Board venturing to increase the rates would stand no chance whatever of being re-elected, or of seeing anything they proposed carried out. Miss Davenport Hill also said that in London the Board had ceased to pay teachers by results, and paid by salaries. Practically the same thing had been done in Bradford, but there was still a margin of from £15 to £20 which results might affect. It could not, however, be said that there was any less pressure upon the teachers, or any less necessity to earn the grant. Some year or two ago it was found that the teachers were doubling and trebling their salaries, and were in receipt of what the Board considered quite enormous sums in consequence of their talent for teaching; but a stop had been put to that now. The teachers had to put up with moderate salaries and the managers got the grant, for which they were quite as greedy as ever the teachers were. Under the former system, if the teacher did not push his children on he could be mulcted in sums varying from £30 to £50 a year, but now if they did not earn the grant they were simply dismissed; so far therefore from the pressure in the schools being diminished by this change it had really been increased. The fact was that the smaller towns could not afford to do without the grant. It was all very well for such places as London, Manchester, Liverpool, or Birmingham, to say that the schools should be independent of the Government grant, and that notwithstanding they would do their duty by the children, but in Bradford and similar towns that could not be done. Bradford had gone through

a long period of trade depression, and the people would not hear of any system of education which would increase the cost to the ratepayers. It was therefore necessary to appeal to the Government to see if they would not modify the system which she believed was producing such evil effects throughout the country. Then as to the number of teachers, the Kindergarten system required one teacher to every twelve children, but under the system carried on by the Government there was but one teacher required to a class of fifty children, and this teacher herself might be but a child of fourteen or fifteen years of age. In Bradford the School Board allowed one teacher to thirty children, but how could a child of fourteen or fifteen years teach a class of even thirty children without any help? As to the statement that parents did not like the Kindergarten system, the fact was that they did not know what it was. If it were understood she believed they would welcome it. No doubt the parents would welcome well-trained teachers. If there was one complaint more common than another it was that made by the parents to this effect: "We won't have our children knocked about by children at school: we won't have our children taught by other children." It was a mistake to suppose that the working people of England did not know what was meant by good education, and she had no doubt that if some of the working people of Bradford were here they would give most good and sound advice on the subject. A working man, who had taken a great interest in the question, once said to her: "We want teachers who will teach our children properly; no young child can properly teach morality." One of the great grievances of the people of Bradford was that these child-teachers were appointed to teach their children instead of men and women. This was a matter which, if the Government or anybody else would take it in hand, would meet with a most ready acceptance from the people of this country.

Mr. HORSFALL expressed his opinion that this was the most important section of the Conference. There was no

doubt that in England at present the question of elementary education was of the utmost importance. All our schools up to the highest were suffering by receiving a supply of children whose faculties had been badly trained in the earliest and most important years of their life. He was surprised, and he dared say that many of the audience were also surprised, at the absence from Lord Reay's otherwise admirable address of all reference to the training of the feelings. Lord Reay spoke of education almost as if it were synonymous with the acquisition of knowledge and desire for further acquisition of it. Yet no one could doubt that the training of the feelings was, through its influence on character and aspirations, one of the most important branches of education, and it was one of the great merits of the Kindergarten system that it recognised that fact, and developed the powers of feeling at the same time that it developed the intellect. At the present time the development of feeling was a subject of the utmost importance. He quite agreed with Miss Lupton that most English parents of the working-classes approved of education which made their children brighter and better. It was not only in Bradford that the question of rates was an important question. There were a good many towns in England where a stoppage of the development of the educational system was threatened through the hostility of the ratepayers to a slight increase in the rates. This was an evil which might easily be overcome by the adoption of the Kindergarten system. He had heard from Mr. W. Mather that when the Kindergarten system was first introduced into the public elementary schools of Saint Louis, it was found to be expensive in regard to first cost. The School Board of Saint Louis proposed after a time to discontinue it for that reason. In the poorest parts of St. Louis there were excited meetings of the poorest ratepayers, who insisted that their children should not be deprived of the advantages of the Kindergarten system. He believed that they had only to introduce the system into their schools in order to excite the same enthusiasm. He believed that it was

intended in Manchester within a very short time, under the new Code which gave greater freedom of action to the managers, to take over the management of a school under the Board and fit it up not only with the appliances necessary for the working of the Kindergarten system, but with really good and carefully trained teachers. If Manchester did that in one school he believed it would soon do it in all its infant schools, and that when one town in England had done it, the example of that town would be followed by all the rest.

Mr. ANDRESEN (late headmaster of Hofwyl School, Switzerland) commenced his address with the following quotation :—

> "Wenn gute Reden sie begleiten
> Dann fliesst die Arbeit munter fort,
> So lasst es uns nun mit Fleiss betrachten,
> Was aus der schwachen Kraft entspringt,
> Den schlechten Mann muss man verachten
> Der nie bedacht was er vollbringt."—SCHILLER'S *Glocke.*

Mr. Andresen went on to observe that brain work was pain work, and hand work grand work. This division of school labour ought to be made. The reason that the Kindergarten had not as yet succeeded was that Kindergarten was no Kindergarten at all. Where was the garden? In the Kindergarten, as seen in this country, there was no garden ; only a little room in which a number of children between three and six years of age were cooped up. Since he had attended the Conference he had heard only one name in connection with the system, that of Frœbel, but he had heard nothing of Pestalozzi, whose exponent he was. In reference to Mr. Edwin Chadwick, Mr. Andresen said that he had been labouring for the division of brain work and hand work. Every school in the land should be a technical school, and based upon what?—Anschauung. That was a Pestalozzian word, which he would not attempt to translate. According to a German maxim a man was only quite a man when he played : "*Der Mensch ist nur dann ganz Mensch wenn er spielt.*"—Schiller. The child was

only growing in the right direction when it played heartily and well. If a child did not play they might be sure it was going the wrong way. First and foremost, playgrounds must be provided, not for the newfangled Swedish gymnasia but for the old English games. The Kindergarten was a children's garden where there should be room for play, and he should say that a lady of fifteen or sixteen years was one proper to lead the children at play in a Kindergarten of the right sort. The Kindergarten was only an establishment necessary in crowded cities, and was not in itself good. Such Kindergartens as he had seen in this country were only schools for children before they had reached the age of six. The questions of children should always be answered, and the work of the Kindergarten was almost entirely work for ladies. There was a German saying to the effect that when the hen began to crow something was wrong in the roost, but in the earlier stages of education women should be supreme. There were two books written by Pestalozzi: "Wie Gertrud ihre Kinder lehrt," and "Lienhard und Gertrud," in which he set forth this principle. The right Kindergarten was the nursery, and every mother who did not devote herself entirely to her child during its first years of life, and did not keep the superintendence of the nursery during the first six, unless exceptionally prevented, was not doing her duty.

Mr. SEVERN, speaking in regard to the inferiority of young teachers, ventured to think that the more the Kindergarten system was adopted the more marked would be the improvement of the young teachers. He had noticed for some years that the Kindergarten system inspired children with a strong desire to teach. Some years ago he constantly found his little girl, who was about seven years old, and his little boy, who was perhaps a little older, trying to teach the baby geography. They got a paint box, and made the baby hold the brush and colour maps, and also made him repeat the names of the counties of England. Soon after that, one afternoon, when he came in, he found his little girl explaining to a small

visitor how to make an equilateral triangle. As she had not a pair of compasses she made the necessary circles with a penny, and having made a shot at the centre she showed how it was done. Afterwards he found her trying to explain other simple figures in the same way. His children at first liked the Kindergarten better than home. A gentleman one afternoon called who was very much interested in sport. His (Mr. Severn's) little boy, aged then about six years, asked him what gun he shot with, and he replied that he shot with a central fire. The boy then said that his father shot with a pin-gun, and that he liked the pin-gun best, because the pin stuck out and showed when the gun was loaded. The visitor remarked that he was a clever boy, and he supposed went to school. The boy replied that he did not go to school, but he went to a Kindergarten. The visitor asked if that were not the same as school. "Oh! dear me, no," said the boy; "we go there to play." The visitor then asked: "Do not you do any lessons at all?" "Oh, no!" the boy answered. "If there were lessons it would be a school, and I would not go then." "Well, what do you play at?" The boy answered: "We play at all sorts of games, geography, history, arithmetic, modelling and drawing." He mentioned this anecdote to show that the English Kindergarten system —though it might not be exactly in accordance with the principles of Frœbel—was a source of real amusement to children; and he really did think that very young children ought to be taught in an amusing way or not taught at all. Their home lessons were of very great importance, but they should be made easy and comfortable. One great difficulty he found was that his children could never find their proper materials; there were no pens, or the pens were broken, no pencils and no paper. Once he found the boys quarrelling over one pen. He determined to remedy this, and bought a dozen pens, and provided separate tables for each, but the pens were not nearly enough, and soon got lost. On enquiry, however, he found that he could obtain a gross of holders for 1*s.* 4*d.*, and it was really astonishing

how soon they disappeared. There was also a scarcity of inkstands. The speaker exhibited a simple, cheaply made desk. The inkstand was fixed down with two elastic bands, and such articles as pens and pencils were also secured in a similar manner, and he found that the children took the greatest pleasure in this simple contrivance. It might be made more beautiful by means of board covered with cloth. It was a sort of thing that could be hung up on the cottage wall, and the children could always find it. A supply of paper was held tightly by means of elastics, and spaces were also left for a book, measure ruler, pencils and indiarubber. The adoption of a desk of this simple character would prevent the quarrelling and fighting, and looking for things which must prevail in cottages where there was only one living room. It was always useful for children to write with upon their knees, and it might be used in the summer out of doors with the greatest comfort. Over-pressure came from worry, not work.

Mr. CHADWICK said he wished to say a word in reference to economy, especially for the benefit of the people of Bradford. He had made enquiries of school-teachers as to the time saved by the introduction of the Kindergarten system, which was variously estimated at from one and a half to two years for each child. He would leave it to the people of Bradford to say what those two years of time were worth. It was also clear to him from the experience of district half-time schools that the half-time system, the only all round system of physical and mental training, gave to two of the present system the efficiency of three. It enabled those taught to earn higher wages, and the employers to get greater profits. Let Bradford calculate that. It was a question of State economy which ought to receive attention.

The CHAIRMAN (Mr. Fitch) said he thought he might congratulate the Section upon having had an extremely interesting and valuable discussion. Before saying a word as to the proceedings of the morning he ought to read a sentence

which had been put into his hand by a lady : " I regret I did not hear the papers read, but I would like to say that from experience I am convinced that Kindergarten and object teaching with finger, hand, arm, and trunk exercises are the only teaching that should be attempted in schools for all classes. My children have had a Kindergarten governess since they were two years of age, and my son, who is five years old, told a builder that his mother would not take his house, and on being asked why, he replied, 'You have not disconnected your drain-pipe.' He then explained that the drain-pipe ought to be cut off, with an open gully underneath." That was only one example of the way in which this sort of teaching might be made an organ for the development of observation in young children. Any one not convinced of that before must have been convinced of it that morning. With regard to the necessity for trained teachers, a point which had been urged with great force, the Chairman observed that Frœbel's method was not a mechanical art which could be acquired by purchasing a shilling handbook descriptive of his methods, or by buying a box of models. It was a philosophy, a theory, a principle. It required to be learned by those who had thorough sympathy with childhood, and who had something of the spirit of Him who said, " Take heed that ye despise not one of these little ones." He was sure that unless they could get a good supply of thoroughly sympathetic and well-qualified teachers, they would never do what they were aiming at. Therefore the true solution of the difficulty was to make the principles of Frœbel more intelligible to those who were to be the teachers of the next generation. He was glad to know that in training colleges, from which the large majority of their teachers went out, increased attention was given to this subject. No training colleges had done that better, or were earlier in the field, than those connected with the British and Foreign School Society, and they would, in the afternoon, have the advantage of hearing from Mr. Bourne, the active secretary of that society, what had been done, and what

might be done under existing conditions. He would suggest to them that they must not be impatient. They could not deal with a great question like this except with such instruments as they already had. It must be remembered that it took a long time to fill the schools of England—the eighteen or nineteen thousand elementary schools—with well qualified teachers. They must therefore proceed cautiously, and not be disappointed if the progress made were comparatively slow. He for one, having had occasion to watch the growth of this movement for many years, was only too thankful at the rapidity of the progress which was being made. Every infant school that he had visited, though very far from the ideal which had been sketched to-day, was distinctly better, and on its way to much greater improvement, owing to the discussions and observations that had been and were being made through the press and through public meetings, through the efforts of the Frœbel Society, and of such teachers and writers as they had had before them to-day. There was great reason for congratulation, and if their efforts were directed steadily to the training of teachers, what they wanted to achieve would before long be attained. He had been particularly struck with the valuable observations made by M. Buls, and he hoped they would be presented to the members of the Conference in a permanent form. That gentleman had shown that Frœbel's own personal experience was necessarily rather limited, and that while his principles were capable of universal application, the particular way in which they should be applied depended very much upon the country, and upon the special surroundings of the children. Do not let them suppose that because Frœbel was so wise and so far-seeing that he had exhausted the whole subject. Do not let any Frœbel teacher suppose that there was no room for further development, and for that adaptation to special needs and requirements which was spoken of so forcibly by M. Buls. He (the Chairman) not being there in any official capacity, felt that he had no right to enter upon the question of the

relations of the Government with infant schools; but he must say, in answer to some observations which had been made by Miss Lupton, that the method of payment by results which she advocated, and which it was not his business to defend, was certainly not accurately described by her. She said that all the children were expected to do the same thing as every other child of the same age. As a matter of fact, there was no such thing as classification by age insisted upon by any of the Government regulations. The children were classed by the teachers according to what they knew of their capacities, subject only to two general considerations. Those two considerations were, that after the age of seven the children should be prepared to pass a simple little examination in reading and writing and arithmetic, which was prescribed for what was technically known as the first standard; and the other regulation was, that if a child had passed in one standard one year he should, as a rule, be expected to go on to the next standard in the following year. Both these were rules which were manifestly necessary in the interests of the majority of children, when it was considered how short was the time during which the children of the poor could remain at school, and how indispensable to them were the elements of instruction. But these rules were subject to a great many exceptions, and exceptions were constantly allowed. Special provisions had been made for these exceptions, with which he need not trouble them; but at any rate nothing could be more inaccurate than to say that children of the same age were all obliged by any Government regulation to march side by side and to make the same progress. Nor was it true to say that the Code measured the grant to an infant school by the number of children who passed any given examination. The grant to an infant school was measured upon other conditions. The inspector was told to treat the school as a whole, to look at its order, its cheerfulness, its singing, its general brightness and efficiency; and especially to fasten his attention upon three things: First of all, were the children learning the ele-

ments of reading writing, and arithmetic suitable to their age? Not being subject to individual examination at all until after the age of seven, the inspector was bound to see whether they were making suitable progress so as to lead up to the first standard when the time came. Secondly, were they receiving object lessons and simple lessons on the facts and phenomena of everyday life? and Thirdly, was their time employed in interesting and well-varied occupations, such as those which had that morning been described? If the inspector said that in all three of these particulars the school was satisfactory, as a whole, the highest possible grant was allowed to it. If it was only partially satisfactory a rather lower grant was paid to it. There were three gradations of grant, and all depended upon the estimate which the inspector formed of the order and usefulness of the school as a whole. They did not in any infant school in the smallest degree depend upon the number of children who passed an individual examination. These were technical details, but they were details which were very easily misunderstood by many; and he hoped the audience would forgive him, as being a person somewhat interested in the administration of the Education Department, for offering that degree of explanation. He was quite sure that under existing regulations, every step that was taken by teachers to make their schools brighter, more animated, and more awakening and interesting to the children, would not only be a step in the direction of increased usefulness to the whole country, but would help to entitle them to the highest and most honourable recognition which the Education Department could give. With these observations he would now ask them to express their thanks, which he was sure would be given most cordially, to the two ladies who had done them the favour to read these papers, and he congratulated the audience most heartily upon the useful and practical character of the deliberations which had taken place.

(The Section adjourned until 2 P.M.)

The afternoon sitting was presided over by Mr. WOODALL, M.P.

The CHAIRMAN observed that the presence of so large an assembly was a quite sufficient indication of the importance of the question they were met to discuss. There was no part of the enquiry engaging the attention of this International Conference more worthy of attention and serious consideration than that which formed the subject of their deliberations this afternoon. If the educational work was to be done well, it was very obvious that they must begin at the beginning, and make that teaching attractive to the scholars, and a facile engine for developing their intelligences.

INFANTS' SCHOOLS UNDER THE CODE OF 1884.

By ALFRED BOURNE, B.A.

IT may appear strange that the British and Foreign School Society should confine its exhibition to the illustration of a single branch of school work; that a society which has been labouring for 76 years to promote universal education, whose principles of local government and religious freedom have been taken as a model for the School Board system inaugurated 14 years ago by the Legislature, and whose Training Colleges educate nearly one-sixth of the trained teachers of the country for all classes of schools, should, as far as the Exhibition and Conference are concerned, ignore all but Infants' Schools, and give special prominence to the Kindergarten system. The limitation, however, is quite consistent with the Society's traditional policy. The Committee was first formed in 1808 to develop and spread the Lancastrian system at home and abroad, in the belief that the methods of Joseph Lancaster would be found to be of universal application—as desirable for one country as

for another; and the Society has been more concerned during the three-quarters of a century of its existence to discover and recommend methods by which education may be improved than to hold any gigantic operations in its own hands. It has always aimed to stimulate and direct local effort, meanwhile testing and commending any new and "more excellent way" which might be able to prove its excellence, and show itself to be consistent with the fundamental principle of civil and religious liberty.

Several reasons may be alleged for giving special prominence at this time to questions connected with Infants' Schools. There is, first, the actual number of the children who are sent to school under 6 years of age. This number is given for England and Wales in the latest returns of the Committee of Council as 841,128 in 5962 departments of schools. There is, further, the fact that the number is steadily increasing. In 1874 the number of children under 6 years of age on the registers of schools receiving grants from the Education Department was 617,910. The increase is 36 per cent. in 10 years. It must be remembered, too, how large a proportion of our population has its home in large cities, overgrown towns, and crowded neighbourhoods, away from the sweet, bright, and wholesome influences of the fields and the flowers. The little ones who are gathered into the schools ought to be specially cared for, to counteract the depressing influences outside. Are we doing our best for this rapidly increasing host of baby scholars? Does our treatment tend towards the healthy development of body and mind, the formation of good tastes, disposition, and character; or are we embittering their young lives, and putting a drag on future educational progress by laying upon them burdens heavier than they can bear? Whatever may have been the case under previous codes, the Code of 1884, with its commentary in the instructions to inspectors lately issued, seems likely to give satisfaction to teachers of infants. The *Schoolmaster*—the teachers' organ—says:—

"It is with great pleasure that we chronicle the alterations

in the mode of examination of Infant Schools. According to our construction of the articles, over-pressure should be lessened here, if, indeed, it is not made to disappear. The inspector is forbidden to draw up subsidiary standards for the four-year-olds and five-year-olds, or to exercise his pet crotchets to the worry of the teacher and the injury of the scholar. . . . It will now be possible to restore the Infants' School to its true place in our educational system, and to allow it to perform the functions which educators have laid down for it. Teachers will be to blame if they do not embrace the opportunity and seize the freedom placed within their reach. It should come as a liberation from slavery in many districts. True teaching will be possible. Brightness, life, and happiness should reappear, and song, playful exercise, and pleasant lessons while away the time as of yore."

This, then, is the time for those who approve of the Kindergarten system to put forward its claims to attention, to expound, exhibit, and exemplify. For one thing is certain : we can no more afford to waste the time before 6 years of age than the cultivator of the soil can neglect the preparation of his fields. The early years are very precious, and their use or abuse will be felt all through school life and afterwards. The school age is short in England among the lower classes. Only 12·32 per cent. of the scholars on the registers in 1883 were over 12 years of age, and only 4·52 over 13. If there is to be education worthy the name, some, and no insignificant part, must be done in the Infants' School. And that education must be good—better than it has been—if we in this country are to maintain the English prestige, and the manufacturing pre-eminence which natural causes have given us, admits of no doubt. In view of these facts it is useless to cry out against the demands of our English code, unless we can show that the kind, and not the amount, of education required is at fault.

Here is our problem. Given children of tender age, whose school days ought to be made specially bright and

cheerful, whose healthy growth is of the utmost importance, whose senses invite careful training, whose hearts ought to be expanded under the genial influence of a woman's sympathy and love, whose minds require rather to be developed and formed than to be burdened with scholastic work. Given also a code of regulations which demands that between 7 and 8 years of age the children shall be able to comply with the following requirements :

1. To read a short paragraph from a book not confined to one syllable.
2. To copy in manuscript characters a line of print, and write from dictation ten easy words, commencing with capital letters, on slate or paper, besides showing copybooks (large or half-text hand).
3. To understand and practice notation and numeration up to 1000 ; also simple addition and subtraction of numbers of not more than three figures, and know the multiplication table to 6 times 12.
4. To repeat 20 lines of simple verse ; and
5. Either to explain a plan of the school and playground, the four cardinal points, and the meaning and use of a map as an exercise in geography, or, as an introduction to elementary science, to show some knowledge of common objects, such as familiar animals, plants, and substances employed in ordinary life.

Further—

6. To show some knowledge of and skill in singing, either by ear or from notes ; and
7. In needlework and knitting to be able to hem, seam, and fell, and to knit a plain strip with two needles.

This is what is required from first-standard children.

Given these conditions, what shall we aim at in the earlier years, from, say, 3 or 4 to 6? Shall we break up this standard work into a set of preliminary standards, and set the children to grind at the work for three or four years, "taking time by the forelock" (as someone has said), "and teaching them their prescribed tasks a little sooner, so

that the tasks may become familiar by mere reiteration before the children are legally called upon to repeat them ?" Or shall we postpone the standard work altogether, till certain preparation has been accomplished and the power has been developed which will make the work easy ? I am pleading for the latter course—for the Kindergarten as a preparation for the school. Let us have for the little ones happy home-like places with plenty of room, plenty of fresh air, plenty of light, varied forms of beauty, and nothing ugly or slovenly, or suggestive of grossness or selfishness or misery—gardens in which the human plants will grow. Let us have a sufficiency of loving teachers touched with a feeling of childhood's weaknesses, with "hearts at leisure from themselves to soothe and sympathise," and glowing with delight at the budding of higher nature, with minds sufficiently enriched and active to excite and satisfy the curiosity of awakening intellect. Let us have organised and well directed play, so that every limb may have its exercise, and the various phenomena of nature and the occupations of the grown-up people around may be associated with the pleasant activities of the restless and growing children. Let us have carefully graduated work for enquiring eyes, and listening ears, and busy fingers—work which shall at once awaken enquiry and satisfy the natural craving for results, while it teaches lessons of patience and perseverance, cultivates accuracy and dexterity, and rewards industry by creating new and higher ideals, and opening up new fields for exertion. "The child" (says a wise lecturer on teaching) "who has learned in infancy to look steadily at the forms and aspects of things near him is, later in life, a better observer of nature and student of physical science. He gets more enjoyment, and more culture, from seeing pictures or fine scenery, than if he had been accustomed to gaze aimlessly and vaguely at the things around him. He who has been taught by exercises ever so childish, steadiness of hand, and precision of touch, is better fitted hereafter to be a draughtsman or musician, and no training of the ear to the finer difference of vocal inflection and

expression is without a very important bearing on literary perception and taste. We know that the development of greater sensitiveness to sight and sound is accompanied, almost necessarily, with the development of intellectual power; that outward expression is a great help to inward clearness; and that whether we call the quickening of physical sensibility a part of lower or of higher education, it is too important a factor in the life and usefulness of a man to be disregarded by any teacher whether high or low." What we ask is that a child may have some such development before it is set to school tasks. Let the preparatory work be thoroughly done, and the child will come to school-work ready to learn rapidly, and go on step by step to the highest education which can be put within its reach.

But will the Code allow this? Will not this involve a sacrifice of all, or almost all, the advantages which result from the connection with the Education Department? Let me remark, in passing, that the Code is made for the children, and not the children for the Code. But what says the Code?

The Code of 1884 says, "The scholars must be taught suitably to their age," and prescribes that the merit grant shall depend on "provisions being made for (1) suitable instruction in the elementary subjects, (2) simple lessons on objects and the phenomena of nature and common life, and (3) appropriate and varied occupations." There is nothing here to interfere seriously with the employment of Kindergarten methods, though some would take exception to the requirement as to instruction in elementary subjects, *i.e.*, reading, writing, and arithmetic. This, however, is qualified in the "Revised Instructions to Inspectors." "Your attention," it is said, "is specially directed in the Code to the results of instruction in reading, writing, and arithmetic. The object of examining very young children in these subjects is to ascertain whether they are making such progress that there is a reasonable prospect of their passing the examination when they reach the standard, or the school for older children. In doing this you will not

require or lay down any standard or scheme to be uniformly observed, but will report upon the plan which is adopted by the managers, and upon the success with which it is carried into effect." No one can object to the caution in paragraph 10, "It should be borne in mind that it is of little service to adopt the 'gifts' and mechanical occupations of the Kindergarten, unless they are so used as to furnish real training in accuracy of hand and eye, in intelligence, and in obedience."

The Code then gives a large amount of freedom, and there need be no fear of the Education Department before the eyes of those who would improve the Infants' Schools. In proof of this I may be allowed to cite the Inspector's Reports in reference to two schools where there are enthusiastic Kindergarten teachers, and much of the system is adopted. The reports are based upon the results of inspections under the Codes of 1882 and 1883.

Of the Herolds Infants', Bermondsey, Mr. Stokes says:— "The Infants' School is in perfect order. Recitation of appropriate pieces is accurate and expressive. Children in the First Standard read exceedingly well in a Third Standard book; they are taught upon Robinson's Phonic System. The babies are carefully managed with much tenderness, and go through some Kindergarten games very prettily. Elementary subjects are well taught in all the other classes, including a First Standard. Needlework and singing by note are satisfactory, and the elements of Botany are given to the elder children, and illustrated by a variety of growing plants."

Of the Kindergarten at Stockwell Training College, Mr. Fitch says:—

"This department has never seemed to me in a more thoroughly pleasing and satisfactory condition than this year (1882). All the distinctive exercises of the Kindergarten are done with care and precision, and in a manner which shows much heartiness and sympathy, as well as teaching power, on the part of Miss Pattison and Miss Fleet. The results attained in reading, writing, and arith-

metic are especially commendable, considering that the children are also trained in the elements of drawing and design with a success rarely obtained, or even aimed at, in ordinary infants' schools."

The real difficulties in the way of the spread of Kindergartens are to be found in insufficient premises, insufficient staff, and a lack of appreciation on the part of teachers of the rational method of educating little children. Small classes, each with a capable and sympathetic teacher, are expensive, yet they are essential to the study of individual peculiarities and the adaptation of the training to each of the little ones. This is the gist of the matter. And this difficulty will not permanently stand in the way. No money is so well invested as that which is laid out in making each successive generation better than the preceding one. And the value of the Kindergarten system will appear more and more. In the words of one of its ablest exponents, "Frœbel's ideas are beginning to spread in England. We are noting more than formerly the fact on which he laid so much stress, that defects in power and character may be greatly traced to original defects of training. We are beginning to believe, therefore, in the immense and lasting strength of early influences. And the value of a right guidance of infants grows upon us, too, as we more constantly bear in mind that, as Frœbel used to say, the child is the seed-corn of the future. We *must* look at life as a linked whole. Those babies that sit so quietly on their mothers' arms, those little ones in pinafores and jackets, that shout, and laugh, and quarrel around us, will be the statesmen, the teachers, the mothers, the shopkeepers, the handicraftsmen of thirty years hence. The infant of to-day may have to edit the newspaper that it now delights to tear and crumple, to legislate for the school in which it is at present the youngest pupil, or to analyse the snow crystals that it merrily stretches out its hand to catch. The greater part of the business of the world will be in the hands of these children. No efforts then can be too strenuous that their minds may become wise, their consciences steadfast, their

hearts unselfish and kind. And it is surely important that all who desire such an end should give careful consideration to the thoughts and plans of Frœbel, a man who spent his years in trying to promote rational education simply from an ardent wish to help towards the realisation by mankind of a high ideal of life."

INFANT TEACHING.

THE APPARATUS NEEDED FOR PLAY AND FOR INSTRUCTION.

By Miss CELIA ELLIS.

THE word play, with regard to infants, suggests two thoughts: first, *where* they shall play, and, second, *how* they shall play. It is impossible to overestimate the value of a playground to young children; therefore there should be attached to every infant school a good playground, one portion of which should be covered, where the children may play in wet weather, and the other open, where they may play in fine weather.

Fresh air and recreation during school hours are almost as necessary to children as food; for, if they remain too long at a time in the schoolroom, the air of the room becomes vitiated, and the children suffer from languor, headache and weariness, arising from the impoverished state of the blood in the brain, and they are unable to give proper attention to their lessons, and will remain so until the brain is brought back to a healthy condition, and this can only be done by conveying to the lungs a supply of fresh air.

The time for play is the opportunity for ventilating the schoolroom, and all the means of ventilation should at once be resorted to in order to admit fresh air, and allow the impure to escape; so that, on the return of the children from the playground, the room will have undergone an

entire change, and be rendered much more healthy than when they left it. The benefits of the playground upon the health of the children may be seen in the brightness, cheerfulness and vigour with which they return to the schoolroom to recommence their lessons. The time spent in the playground can in no way be regarded as lost time: it is much to be regretted that longer time is not allowed to be devoted to this very important matter.

How they shall play is the second thought for consideration.

All play should be under control. It is quite as necessary for the teacher to be in the playground to organise the games and direct the children *how* to play, as it is for her to be with them in the schoolroom. If the children be sent into the playground, and allowed to play in a desultory manner, they do not derive the benefit which they otherwise would from well-directed play.

It is well for the teacher to enter fully into the various amusements of the children, and to make herself one with them during their play: she is thus armed with a twofold influence over them: she is head of their play, and she is their teacher.

The Apparatus Needed for Play.

Both boys and girls enjoy a game at ball; large soft balls should be used for fear of accident. The boys are fond of a game at horses, and the girls could knit in wool some reins for this purpose, fastening a few little bells in the front; the run which this game demands forms a very healthy exercise for them. Tops and marbles furnish a pleasant amusement for boys. The girls delight in the game of joining hands and forming rings: it is a healthy diversion, and affords exercise for a great number of children at once. Skipping-ropes furnish a good exercise for girls down to the very little ones, and doctors have recommended skipping as being conducive to health; battledores and shuttlecocks too furnish a capital game for the girls.

Instruction.

The love of activity in young children is very strong, and, if we would have them happy, we must give them something to do where they will be required to use their hands ; nothing furnishes employment of this kind better than the Kindergarten occupations. Children from three to five years of age should spend a considerable part of their day at Kindergarten, which would be much more interesting to them than their attempting to overcome the difficulties of learning the alphabet, or perplexing their young minds with the addition and subtraction of numbers.

It has been argued that the Kindergarten system of instruction is not work but play ; but, if the children, at this early age, can be instructed in form, colour, number, and drawing by means of this system, surely it is a very useful and profitable kind of play! It seems a pity that the Kindergarten occupations, which cultivate the intelligence, and develop the faculties, and so prepare the mind to receive more advanced instruction, cannot be accepted in the place of reading, sewing, adding and subtracting numbers while the children are under five years of age: these lessons are a source of anxiety to little children ; they are not happy in them, and surely the great aim of the teacher should be to promote the happiness of the children ; therefore no instruction calculated to worry them should be given while they are so young. The one great drawback to the education of infants by means of the Kindergarten is, that a much larger staff of teachers is required than is generally needed. The various gifts of the Kindergarten supply the apparatus necessary for this instruction.

No lessons are more pleasing, and at the same time more instructive to all children, than those on animals, plants, and common things, especially when these lessons are accompanied by illustrations and specimens. Young children are very fond of pictures, and will be infinitely more attentive to a lesson, if a picture be used, than without one ; therefore every infant school should possess a collection

of good animal prints, pictures of plants, and a museum containing specimens of common objects. Such lessons afford a beneficial change to the children when they become tired with those which have required greater mental effort.

Singing.

This is a most pleasing portion of instruction both to the children and teacher, and when the songs are accompanied with actions, singing forms a healthy exercise to the children. It is well to introduce it in changing lessons, or even in the middle of some lessons, such as needlework, where the children are obliged to sit for a much longer time than at any other lesson. If the children be taught to sing by note, a Tonic Sol-Fa Modulator is required first, and afterwards, a Staff Modulator.

Needlework.

This is essentially a branch of instruction for girls and not for boys. In many infant schools the boys are taught to sew; but would it not be a more suitable occupation for a boy, if the teacher were to provide him with a penknife, some sticks and soaked peas, and require him to make a little chair, stool, or any other common object; or, as the boys have to show a greater proficiency in arithmetic than girls, might not the time be better spent in devoting it to this important branch of instruction, or perhaps to drawing? One argument in favour of teaching boys needlework is, that it enables them to use their hands with greater dexterity; but would not some of the gifts of the Kindergarten produce the same result, and be more in accordance with the taste of a boy of seven or eight years of age than his sitting down with a needle and cotton to make a pinafore? Besides, does not a boy waste a good deal of time in the infant school in learning to sew, when probably he will not, after leaving this department, take a needle in hand for years, and when he will quite have forgotten all

the needlework he learned in the infant school. The importance of needlework to girls cannot be overrated, but five years of age seems quite young enough for a child to be trusted with a needle in safety to itself; but, as she is required to show ability to hem at this early age, she must begin at four years of age, or at the latest at four-and-a-half, and needlework to children as young as this is a sore trouble. Needle drill might be taught to them as young as four years of age, and, as the needles used for this exercise are large and blunt, there is no fear of accident to the children, and it is a pleasing occupation for them. It would be well if the girls of Standard I. were not required to show ability in so many branches of needlework: the amount prescribed by the Code would, if well done, be good work for a girl of eight-and-a-half, or even nine years of age; but many of them in the infant school are only seven years old at the time of examination, and the work to these is too difficult and too much.

Apparatus Required.

Great care should be taken that neither the needles for sewing nor the material used is too fine, or the work becomes trying to the eyes, and will in time injure the sight. In learning the various stitches it is well to use coloured cottons, as the children are able to see the stitches more easily. The needles and cotton or worsted used in knitting should be coarse, as it is less difficult for the children to knit with coarse materials than with fine.

Reading.

There is no royal road to this; the teacher may do much to smooth the child's path by presenting it in as inviting a manner as possible, but still the child must first learn the letters of the alphabet. It is much to be deplored that little children, as young as three-and-a-half years of age, are burdened with this uninteresting and difficult task; surely their minds should not be thus

taxed till after four years of age, or even later. A fairly intelligent child, who learns his letters at five years of age, will often read much better at seven than one who has begun to learn them at three-and-a-half years ; simply, because at five, the child's faculties are more fully developed, and he is able to pay more attention. The teacher should guard against making the lessons too long, especially with children under six years of age. Frequent change is absolutely necessary ; their attention cannot be kept up longer than thirty minutes at a time, and the teacher will be fortunate if she can secure it even as long as that. As soon as she observes weariness and inability on the part of the children to attend to the lesson, it should be changed for another more calculated to interest them, and so keep up their attention, as, without this, the lesson is valueless.

Apparatus required for Reading.

The children should be taught to form with laths or sticks the straight-lined letters of the alphabet first, as these are much the easiest, and afterwards, from the straight and curved pieces of card, known as the Kindergarten alphabet, the teacher should help them to form the more difficult letters. Letter cards and a box of loose letters should also be used ; here the letters are printed in large type, in red and black colours. As soon as the children have succeeded in learning the letters of the alphabet, reading sheets, suitably graduated, should then be introduced, and lastly, books, simple at first and increasing in difficulty as the child makes progress. The books should contain interesting narratives, and, above all, pictures, as these are so instructive and attractive to all children.

Writing.

This is an imitative art—a species of drawing—and is a less difficult lesson than reading: it does not require much mental exertion, and should therefore follow a

lesson which has needed a greater effort of the mind. It is, however, highly important that suitable desks are provided, or the children sit in an uncomfortable position, which is very injurious to their health. If the desks be too low, the children become cramped, and stoop in the writing lesson ; if they be too high, they will be obliged to write, vainly endeavouring to reach the floor with their feet. Both these positions are not only extremely uncomfortable, but they are calculated to injure the health. The children cannot be taught too early the importance of sitting in a proper manner during the writing lesson, and, if we would have good writing, then we must place all the means for securing it within the reach of the child.

Apparatus required for Writing.

After the children are suitably seated, the teacher will need a large slate on which to set the copies ; this, as well as the small ones used by the children, should be ruled, as, by means of ruled lines, they can be taught the relative size of the letters, correct slope, and the proper mode of joining the letters. As soon as they can write the letters of the alphabet well upon a slate, and form them into words, transcription lessons should follow, and afterwards they may begin to write upon paper. They should be supplied with copy-books, containing copies of writing in the most elementary form : if attention be paid to the writing at this stage, it will present little difficulty to the children. The importance of providing the children with pens and pencils of a suitable length should not be overlooked by the teacher.

Arithmetic.

This is perhaps one of the most difficult lessons for young children. It should be taught first by means of objects, and of these there should be no lack : the ball frame, cubes, glass balls, pencils, books, laths, the pictures round the

walls, the children in the class, and, indeed, anything they can see in the room could be made to serve this purpose. Objects so used lend a charm to the lesson, and there is a greater hope of keeping up the attention of the children if they be allowed to handle the objects. Children find it very difficult to grasp the abstract operations of numbers unless they be first led on to them from the concrete. It would be well if children under five years of age were only required to distinguish one number from another by means of objects as far as ten, without their attempting to add numbers together. As soon as the children are old enough, and are able to add and subtract numbers mentally, the objects may be put aside, when ciphering will present but little difficulty. Mental arithmetic should form part of every lesson on this subject after the children have commenced ciphering, as it makes them much more ready at numbers, and is, besides, a change to them.

Colour.

This may be taught by means of the Kindergarten system, but where lessons are given upon it separately, the teacher will require a board on which small squares of the various colours are painted. The first thing a child learns in such a lesson is to match a certain colour pointed out by the teacher, who should place before the children specimens of the same in different materials, as wool, silk, pieces of card, paper, etc. When the children are able to distinguish the primary colours by their names, the secondary could be taught by means of experiments, and for this purpose colour boxes and brushes are necessary. Lessons on colour cultivate the taste of the children.

Form.

This too may be taught by means of the Kindergarten gifts, but where these are not used, a box containing a set of wooden solid figures, another one containing a set of plane figures, and a board upon which these figures are painted

will be required. It will be sufficient if the children, while they are in the Infant School, be taught the simple figures, such as the square, the oblong, the oval, the triangle, the circle, the sphere, and the cube. The children themselves might form the most simple of these figures with sticks or laths.

Drill.

This is highly important to all children. The usual exercises which infants go through daily are not to be underrated; but, if some system of drill be taught, the children perform the exercises in order, and each one is intended to produce some beneficial effect upon one or more members of the body.

Dr. Ling's Swedish system of drill is now adopted by many schools with great advantage to the children.

As soon as they are able to perform such exercises of this drill as are suited to their age, the teacher can introduce some of them when the children are feeling tired through sitting too long at a lesson.

INFANT SCHOOLS IN FRANCE:

A SHORT ACCOUNT OF THE ÉCOLES MATERNELLES, FORMERLY SALLES D'ASILE.

By Madame Dillon,

Inspector-General of Infant Schools, France.

The institution of Infant Schools in France can be traced back for more than a century. Thus, in the year 1770, the first *Knitting School* was started in the Vosges Mountains by the Pastor Oberlin. Fifty years later the "Salles d'Asile," in Paris, were established by Mmes. de Pastoret and Mallet and M. Cochin, who were inspired by the examples afforded them in Scotland and England. In 1816, Robert

Owen, in connection with his factory at New Lanark, had begun a school for little children, entrusting the management of it to James Buchanan, a simple uneducated workman, but endowed with remarkable natural talents for teaching and instructing. So successful were the results that, in 1819, Lord Brougham invited Buchanan to London, and appointed him to organise some infant schools there. It was these which served as a model for the Salles d'Asile established in France.

A committee was formed, which included the two ladies just mentioned, and at the instigation of M. Cochin, one of the Mayors of Paris, several of the members were sent as a deputation to visit the London infant schools. The system was imported to Paris. Mme. Millet stated that she had seen some advanced subjects taught in the English infant schools, and expressed a desire that the instruction given in France should be more varied. "The two nations differ so much in character," she added, "as to allow of a diversity in the methods adopted, without any need to criticise what is done by our neighbours."

In 1828 the number of Infant Schools in Paris was three, in 1836 twenty-four. At the end of 1837 there were 262 in the whole of France. These were maintained partly by private individuals, and partly by the various towns and charitable institutions, as well as by Government grants assigned by the "Minister of Public Instruction." It would occupy too much time to follow, step by step, the progress made. Let it suffice to say that in 1850 the number of institutions was 1735, of which 1055 were public and 680 private, with an attendance of 160,244 children; while in 1883 the number amounted to 5,380, of which 3,345 were public and 2,035 private, with an attendance of 679,085 children.

The Department of the Seine had always been at the head of the infant school movement. In 1830 it created the first post of Lady Inspector-General, and appointed Mme. Millet.

From 1833 to 1836 the municipalities all at once showed

a constantly-increasing liberality towards the Infant Schools, as well as a desire to be free from the action of the committee. In 1836 the Salles d'Asile were, by a Government circular, classified with schools under the jurisdiction of the Minister of Public Instruction.

To this epoch also must be referred the Lady Inspectors appointed to examine the schools, and the first "Lady Inspector-General" nominated by the Minister. And in this connection we must not forget the name of Mme. Pape-Carpentier, to whom we are indebted for several works which have become classical in America, England, and wherever Infant Schools are to be found.

In 1848 a resolution was passed that the "Salles d'Asile," which, by an order, dated November 22, 1837, had been improperly termed "Charitable Institutions," should take the name of "Écoles Maternelles." By the same Act a Normal School was instituted in Paris, to provide a course of practical instruction for the head mistresses of the "Écoles Maternelles." Unfortunately the decision as to the name to be given to these schools remained a dead letter.

The law of the 15th March, 1850, did nothing for the "Écoles Maternelles." In 1855 it was enacted that the "Salles d'Asile" were educational institutions in which "children of both sexes receive the care and attention demanded by their development both physical and moral."

The instruction given comprised the first principles of religion; (2) reading; (3) writing; (4) arithmetic; (5) outline drawing; (6) branches of knowledge suited to the intelligence of children—manual work adapted to their age; (7) religious hymns and songs; (8) moral and physical exercises.

The admission of the pupils was authorised by the Mayor. The teaching staff was composed exclusively of females. The examination or inspection of the schools was entrusted to "Special Lady Inspectors" and "General Delegates."

In 1875, the advancement made was enormous. In

1879, M. Jules Ferry, then Minister of Public Instruction, notified to the Prefects throughout France the necessity of creating Infant Schools. In communes where such creation was impossible, he urged upon them the introduction, at least in the lowest division of the Primary Schools, of the methods adopted by the Salles d'Asile. This impulse being given, hundreds of schools were organised.

In 1879 a Commission was appointed to consider a scheme for revising the organisation of the Salles d'Asile. This scheme having been submitted to the "Superior Council of Public Instruction," was embodied in the Decree dated 2nd August, 1881, which at present regulates the "Écoles Maternelles."

The following, very briefly, are some of its principal regulations :—

The "Salles d'Asile" definitely take the name "Écoles Maternelles."

The "Écoles Maternelles," whether public or private, admit children of from two to seven years of age, who receive there the care and attention demanded by their physical, intellectual and moral development.

The instruction comprises :—

(i.) The elementary notions of moral education ; object-lessons ; the first elements of drawing, writing and reading ; practical exercises in speaking ; elements of natural history, geography ; narratives suitable for children.

(ii.) Manual exercises (for training the hand).

(iii.) Singing and gymnastics.

In every school which receives more than fifty children, the head mistress must have an assistant teacher. The head teachers are appointed by the Prefect, on the nomination of the Chief Inspector, and are chosen as much as possible from among the assistants. They must be twenty-one years of age, and provided with the *Certificate of Aptitude.*

The under teacher must be eighteen years of age, and provided with the same certificate. The training colleges for female teachers, besides providing teachers for the primary

schools, are also intended now to recruit the teaching staff of the Infant Schools.

The Decree prescribes that the children are to be classified according to their age and their advancement in knowledge.

The inspection of the Écoles Maternelles is entrusted to "Departmental Lady Inspectors" and "General Lady Inspectors," nominated by the Minister.

The Decree also gives details of the instruction to be given on the various subjects, as well as regulations as to the examinations connected with the "Écoles Maternelles." It further gives a programme indicating the object of these schools, and the method to be pursued.

The following is a translation of the programme :—

"I. *Object of the 'École Maternelle.'* The object of the École Maternelle is to give to children who are under school-age [l'âge scolaire*] the care and attention demanded by their physical, intellectual, and moral development, so as to prepare them to receive advantageously the instruction of the Primary Schools.

"The École Maternelle is not a school in the ordinary sense of that term. It forms a means of transit from home to school ; it preserves all the gentleness and indulgence of home while initiating children into scholastic work and regularity. The success of the head mistress in an Infant School should not then be estimated solely by the amount of knowledge imparted, by the standard of education obtained, or by the number and duration of the lessons, but rather by the amount of good influences to which the child is submitted, by the pleasure with which it is taught to regard school, by the habits of order, cleanliness, politeness, attention, obedience, and intellectual activity it has contracted so to speak, while playing."

Head mistresses ought therefore to think less of providing the Primary Schools with children who are already advanced in their instruction, than those who are well

* Six years of age.

prepared for being instructed. All the exercises of the Infant School will be regulated on this general principle: they ought to assist in developing the various faculties of the child without fatigue, constraint, or excessive application. They are intended to make him like school, and to give him an early taste for work, by never imposing on him a kind of work which is incompatible with the weakness and mobility of the age of infancy.

"The object to be reached, while taking into account the diversities of temperament, the precocity of some, and the slowness of others, is not the getting them all to attain to this or that degree of knowledge in reading, writing, and arithmetic; it is that they know well the little which they *do* know; it is that they be fond of their tasks, their games, their lessons of every kind; it is, above everything, that they do not take a dislike for those first school exercises which so quickly become repulsive, unless the mistress, by her patience, her cheerfulness, and her kindly tact, can find the way of varying them, making them amusing, and drawing from them or adding to them something which affords the pupil pleasure.

"Good health, a sight, hearing, and touch already trained by a graduated succession of those little games and experiments suited to educate the senses; childish, but clear and distinct, ideas of the rudiments of what will a little later be the 'Primary Instruction;' a commencement of habit and disposition on which the succeeding teachers may trust to build a regular education; a taste for gymnastics, singing, drawing, pictures, stories; an eagerness to listen, to see, to observe, to imitate, to ask questions, to give answers; a certain faculty of attention maintained by being docile, trustful, and good-humoured—in a word, the intelligence awakened and the mind open to every good moral impression; such ought to be the effects and results of those first years spent in the 'École Maternelle;' and if the child, on leaving it, goes to the Primary School with such a preparation, it matters very

little whether he has also learnt a few pages more or less of the 'spelling-book.'

"II. *The Method.*—Those principles being laid down, what is the most suitable method to apply to the Écoles Maternelles? It is obviously that which is suggested by the very name of the institution—that is to say, that which consists in imitating as much as possible the procedure of an intelligent and devoted mother when teaching her child.

"Since, in the Écoles Maternelles, it is not intended to train or exercise one order of faculties to the injury of others, but rather to develop them all harmoniously, one must not slavishly or rigorously follow any of the special methods founded on an exclusive and artificial system. One should, on the contrary, strive, by choosing from all the separate methods their simplest exercises, to construct, by means of these various elements, a course of instruction and education which corresponds to the various wants of the little child, and brings all his faculties into play. The exercises must be extremely varied; an object-lesson, conversation, singing, the first attempts at drawing, reading, reckoning, repeating, must share the time with bodily exercise, games of every sort, and gymnastic movements.

"This method is essentially natural, familiar, always open to further extensions, always susceptible of further completion and improvement."

A single word, in concluding, with reference to a question which at present occupies the minds of many. Should the number of the Infant Schools in France be increased, or should it be diminished? Or should we rather encourage the creation of Infant Classes? If we increase without limit, and under State patronage, the number of Écoles Maternelles, in which infants of from two to four years are much more numerous than those of from four to seven, would that not be to withdraw too soon the child from the influence of the mother? Are not the parents themselves often too ready *to get rid of* their children? We are not

now speaking of the great industrial or agricultural centres, where the people are so tasked unfortunately as to necessitate their sending the children to the École Maternelle. We would wish to have everywhere, where necessity demands it, refuges provided by the municipalities for these little ones of from two to four, and supplied with every convenience suited to their age, tools to practise with—such as spades, rakes, etc.—and toys. The person in charge of them should be of middle age, a mother if possible. She would superintend their games, and bestow upon them all proper care and attention. No instruction, properly so called, would be given them.

The State would only acknowledge and pay the teaching staff of Infant Schools or Écoles Maternelles which would receive children of from four to seven years old. Such Infant Schools or Classes would, as far as circumstances permit, be connected with Girls' Primary Schools.

This problem has been only for a short time under consideration, but it will probably soon meet with a solution.

DISCUSSION.

Miss MOORE, in considering the question—will the Code allow the methods of teaching suggested? said it was clear that the Code did authorise school teachers to pursue any methods that were suitable. She did not think there was any public dislike to plain methods as they were called. As to expense, her own opinion was that the teaching of little children ought to take up as much teaching power as the Kindergarten did, for if infants were taught to read in classes of fifty to sixty, the saving effected in teaching power was at the cost of the children. Mr. Andresen had spoken somewhat disparagingly of the writings of Frœbel in comparison with those of Pestalozzi. Pestalozzi pointed out what education ought to be, and he "made himself a beggar in order that he might teach

beggars to be men." The Kindergarten was useful because it taught children to live with people whom they did not very closely know. There was something organic in the Kindergarten. Madame Dillon said that in the French schools they had lady inspectors. It had always struck her (Miss Moore) that one great difficulty connected with the examination of schools on Kindergarten principles was that the inspector was a highly-educated university man. He very likely knew all his own subjects very well, but it was very unlikely that he knew anything about the Kindergarten. Having been manager of Board Schools under an inspector who did understand the Kindergarten, she could testify how grateful the teachers were for his very sympathetic examinations. At other schools she found the story was very different, where the inspector did not understand how to judge of the teachers. Some remarks had been made as to Frœbel's own experiences, but Frœbel's teaching was based on the things around the child. With regard to the remark of Miss Ellis that the teacher should assist in the play, that was extremely true. She found universal testimony to the effect that School Board children did not know how to play: they only tumbled about and made themselves very unhappy, and they thought it a great treat when one who was taller and older than themselves would lead the game. They had not the power of self-direction, and therefore they required that some one with a strong will should show them the plan of a game. Miss Moore also dwelt upon the desirability of mutual obligations between the sexes; and it was very desirable to her thinking that the distinction between the sexes should not be drawn any earlier than was needed. Some people thought it was very ingenious to alter the name into "Kitchen garden," and to style the doings there as elementary cookery. Now the Kindergarten was not an industrial training. It was a training of the faculties. She was delighted at the general concensus of opinion in all the papers that had been read, that it was best in the first instance to develop the child,

and see afterwards what it would like to do. Its future success in life would no doubt depend upon the extent to which the balance of its faculties was preserved.

Mr. W. H. HERFORD (Manchester) said it was a very great privilege to an old Kindergarten enthusiast, who was rather in danger of being looked upon in his own narrow circle as a fanatic, to find that in some respects at least good times were coming for the Kindergarten, and that a degree of friendly patronage was being bestowed upon it like the little drops of a sweet tasting fluid, which came down from certain trees at various seasons of the year, but which was not a moisture such as the plants underneath enjoyed, or the cultivators of those plants entirely welcomed. Being a fanatic, as aforesaid, he took up a position in regard to the Kindergarten a great deal higher than anything which had yet been plainly stated, but which had been fully and completely implied a great many times, to his great happiness and satisfaction. He did not think it was at all reasonable that they should speak in that kind of apologetic tone, and that we should look upon Frœbel as only a man of ingenious method, who had introduced intelligent plays for children. If the Kindergarten meant anything, it meant a great deal more than that. He was exceedingly thankful that it was making progress towards being accepted as the best form of infant school, to be introduced in connection with the regular elementary schools. At the same time those who were fanatics and enthusiasts would not be satisfied with children under five years of age, or under six years of age either, being taught a sufficient quantity of reading, writing, or arithmetic to get them into a kind of groove, so that by the age of seven they might be able to come out in the first standard. But they would be exceedingly glad if any portion of the Kindergarten principle, not the Kindergarten practice, were generally introduced into the elementary schools, and there were abundant signs that this was being done. They did, nevertheless, greatly object to the introduction of a small box containing a limited quantity of strips of wood, and a certain number of small balls of

cotton and worsted, and needles with the points carefully blunted, and a variety of things of that sort, and to children being at distant intervals in the week set to do a variety of things; and to its being said that the Kindergarten was introduced into that school. They thought that that did more harm than good. He must not touch upon theology, or he would say that this method of introduction resembled the manner in which heathenism was mixed up with Christianity in early ages; and this new reform would, he believed, be, to the children of so-called civilised countries, something nearer to a real kingdom of Heaven upon earth than anything they knew of at present. They must, however, hope for this kingdom in course of time. What they wanted was the principle of Frœbel introduced not only into infant schools, but into all their education. With reference to various speakers, Mr. Herford observed that they appeared to have forgotten that this was a question not of acquiring a certain amount of learning, but of educating in the right way. It was not a question of what the children learned, but the way in which they learned, the way in which they took hold of it; not whether their minds were exercised in respect to these particular things which were, of course, the necessary means of their training, but whether they were exercised in such a manner that the children would afterwards be able to use their powers upon the very much larger scale, amongst the infinitely varied materials, which the world offered to them. It seemed to him that there was a great deal of truth in a romance which he read some months ago, and in which a remarkably interesting and delightful young lady, who was introduced as the heroine, only learned to read after she was twenty-one. He thought there was great sense in that; and that it would have been a great mercy to many of them if they had not learned to read nearly so soon. Of course it might be said that they might exercise moderation in not reading a great deal afterwards, unless they wished to, and no doubt some of them did. There was one great philosopher, whom he was sure they all knew, who said

that if he had read as much as other people, he would have been as great a fool. Unless people had learned to observe and to use their senses before they learned to read, the chances were that what with standards, what with examinations, what with scholarships and prizes, and what with the gold medals and all the inducements held out to make people begin with reading, and go on with reading, and have their minds continually fixed upon types and grovelling always amongst pages, they would forget that which was greater than all the books, and really fail to use the faculties which God had given, upon the world which He gave. His own idea of Frœbel's principle was that they should treat all that was called instruction and book-work, and everything of that kind, as merely means towards an end. The end was one which was entirely hidden within the mind of the child, or the youth, or the man, or the person, or whoever it happened to be. He thought he was justified in saying that the present education erred chiefly in the trifling detail that it put the means in the place of the end.

Mr. SEVERN said that he had been asked to read a few notes, written by a lady (Mrs. White), dealing with this subject. She was of opinion that all children, both boys and girls, ought to learn at from three to seven years of age to handle a needle, not in the ordinary way, but in sewing in coloured cottons or wools on paper on which they had previously printed letters, figures, or patterns. The easiest way to teach arithmetic was to let the children sew figures on perforated card-board, and in this way they would insensibly learn the multiplication table. No lesson ought to extend beyond twenty minutes. Then there should be a game, under supervision, or exercise without apparatus should follow, lasting from ten to fifteen minutes. The lady in question (Mrs. White) also thought that boys ought to be allowed to learn sewing to a certain extent. Mr. Severn went on to say that only a few days ago one of his own boys was walking about his house looking for somebody who would sew the sails of his boat. He

wished all his boys to learn sewing. He himself could use the needle, and would undertake to say that when he sewed a button on it never came off. One subject had not been touched upon, viz., what to do with the children during their holidays, and this was a question in respect to which he always experienced some difficulty. In the summer, of course, they went into the country, where the sources of amusement were boundless, and the difficulty only was in the winter and during bad weather. He found in the case of his own children that they took very readily to acting charades. He had French-Swiss servants in order that the children might learn French, and they were in the habit of taking part in the plays. By this means the children kept up their French, and also acquired a little German and Italian, which could easily be introduced in the acting.

Mr. SONNENSCHEIN said he wished to make some observations upon what was said in Mr. Bourne's paper with respect to the Code. It was evident that Mr. Bourne had said all he could in favour of the Code, and having stated the requirements of the first standard, he did not think them heavy. He (Mr. Sonnenschein) also did not think them heavy if they were going to content themselves with mechanical teaching; but if they wanted good thorough rational teaching in accordance with the principles laid down in Frœbel's course, then this first standard could not be taught. If the day should come when the Education Department took in hand the secondary education of children, and power were given to the teachers to cram children with knowledge, he for one would not be able to do it, and would have lost his vocation in life. Mr. Bourne said that there was nothing in the Code which interfered seriously with the Kindergarten method; this may be so, but let them compare our Code with those of the Continent. The Continental teacher has to ask himself how he is to attain the high ideal set up by his Code, whilst the English teacher is perplexed with the problem, how to attain his own high ideal in spite of his Code. The Continental

Codes stimulate, the English Code thwarts enthusiasm. He was fully convinced that until the Codes were adapted to a rational system of education, and until the system of payment by result was utterly abandoned, they would not be able to get rid of the evils from which they were suffering. It was this system of payment by results, coupled with a badly adjusted Code, which led *inter alia* to that over-pressure in the schools which undoubtedly did exist in spite of reiterated assertions to the contrary.

Mr. LANGLER said he believed that there was no Section of this Educational Conference of more importance than this. It was of the highest value to the nation that children should be early trained to exercise the faculties which God had given them. As those faculties had been already alluded to he need say nothing about them, but would only insist on the advantage of a rational interpretation of their use in regard to the actual surroundings of a child, so that between the eye, the hand, the sense of hearing, the sense of touch, and all the objects and combinations of form and colour presented to his attention, there should be established a prompt and sympathetic connection in the earlier years of life. At the present time—he was almost going to say in the present excitement—they were naturally directing their attention principally to the Kindergarten as a means of development which had not been fully seized. One gentleman had spoken that morning in terms of high praise of Pestalozzi. He was, however, a wild irregular teacher, as everybody knew, but Frœbel took his principles and adapted them to educational purposes in a manner which was now commanding the attention of the civilised world. He believed that those principles were capable of further application, and might be as well applied to the children of England as to the children of Germany. Frœbel's mode of education was challenging the attention of educationists, and would no doubt result in an educational development in England superior to that of all the other nations of the world. That was a very desirable thing. He had himself taken some part in the work. He was

trained under David Stowe, of Glasgow, whose principles were the same as those of Frœbel, but had special reference to the formation of character. He (Mr. Langler) recently visited the gardens in the Training College where he was a pupil more than thirty years ago, and where he then saw the children playing about amongst the ripening strawberries and pendant currants, and though mere infants trained to resist the temptation to pluck the fruit. The existing public opinion in that infant school prevented their doing so ; and what was the basis of such an opinion ? It was earnest instruction in the Word of God. Day by day there was a Bible lesson, and he was the more inclined to mention this because he heard that in many schools of this country the daily Bible lesson was cut down to the smallest possible limit of time, owing to the exactions of what he was going to call a cruel Code. It was not cruel in its design, nor in its ultimate object, but it was cruel in the mode in which, in some places, at least, it had been administered, and for that reason it had raised throughout the country a feeling of opposition, a feeling the existence of which was not, on public grounds, desirable. Now, what was the object in infant teaching ? In Mr. Bourne's paper were embodied such expressions as brightness, life, happiness, song, pleasant exercises, and pleasant lessons. That was just what was wanted, and that was the burden of the excellent paper which was read by Miss Ellis. They wanted what was present in the *École Maternelle* spoken of by Madame Dillon, viz., the mother's spirit. In the infant school the spirit of the mother should pervade the whole from the time the little one entered the school till it went home, full of longing to go again. Children should not *cry* to go to school, but cry *to go* to school—two very different things. If they were happy they would always be anxious to go to school. No infant school was based on the right principle that did not tend to make the children happy. In this country the requirements of the Code were constantly regarded in the public school. From the time they entered the infant school, perhaps at three and a half

years of age, until the time when they entered the First Standard class, at the age of seven, they were preparing for the examination, which might happen within a week of their attaining their seventh year. As a consequence, many children did not lead a life of happiness. It was not a natural condition of things, but one which it behoved every educationist and (alluding to the Chairman) every Member of Parliament to do all he could to remove. They had that morning had an excellent address from M. Buls, whose acquaintance he had the pleasure of making at the International Congress held in Brussels in the year 1880. He asked him how it was that the young women of Brussels did not enter upon the work. Was it a question of salary? M. Buls replied that it was so in good part. He (Mr. Langler) then asked if there were any other reason, to which M. Buls replied that public opinion was not yet so formed in Belgium, as to consider teaching an honourable occupation. It was a question of *fierté*, which he supposed in English meant pride. Such Conferences as these would, he hoped, help to dispel such notions, and there would come forward ladies such as they had that day heard advocating and interesting themselves in the spread of this system, which would tend so much to the benefit of the country. In connection with this subject he would just suggest this one thing, viz., that School Boards, and all those who were interested in the welfare of little children, should not make that wide difference in the salary which existed between those who took girls' schools and those who took infants' schools. Had it not been confessed that it took the highest talent to teach the very young, and that it required not only patience, but persons of strong sympathy, and of strong character and of strong will to undertake the work of securing for the children of the nation in their earliest age that happiness, that development of mental power, that use of their senses, which would make of the ordinary people of this country the best in the world.

FRÄULEIN HEERWART said, that judging from the

speeches that day delivered, they seemed to be as yet only on the threshold of the great work which was to be accomplished. A power for good was in the hands of the young ladies who had attended this Conference, and whose privilege it was to help to further the spread of education as they had received it on the principles of Frœbel. She was pleased to hear one gentleman speak of the education of the feelings, and say that these should also be educated. She would advise those who proposed to give lessons on the Kindergarten system to appeal to the feelings in each lesson as well as to the intellect. As to the gentleman from Switzerland, who spoke of the writings of Pestalozzi and of Frœbel, she thought, in the case of the latter, he could only have looked at the form of the writing and the form of his verses. Frœbel was not a poet; he was a master in education, and no one had the same ability in understanding a child that Frœbel had; he seemed to dive right down into the mind of a little child; consequently he devised the best means of teaching the young.

Mr. ROWLAND HAMILTON said he thought that one of the best results which had arisen from the decision at which the country arrived some twenty years ago, as to bringing education within the reach of all classes and capacities, was this appreciation of infant culture. Modern physiology had come to the conclusion that there were certain pursuits which were most fittingly acquired at the very earliest age. And out of these primary perceptions more complex and advanced conceptions were built up, reaching at last the highest exertions of which the human mind was capable. It was impossible to over-estimate the advantages of that early training which began even before the child could speak, and was gathered by instinct from the well-ordered mind of the mother. It was this which more than anything else modified that idea of heredity which had lately been so much talked about. By beginning in the earliest stages very much could be done to supply early deficiences, and so put a curb upon those faculties, and upon those desires which, by reason of their excess,

were likely to disturb the future of the child. He remembered that Mr. Routledge, one of the School Inspectors for East Kent, wrote to the *Times* some five or six years ago, when a great deal of discussion was taking place in reference to colour blindness, stating that in his experience he had met with no case of actual colour blindness where a child had received instruction in a good infant school. This accorded with the experience that it was very rare indeed for any one of the faculties to be totally wanting, but it was by no means uncommon for one of them to be so far deficient that the exercise of it required peculiar labour from which we all instinctively shrank, whether in childhood or in mature age. These were matters which should be the subject of careful training. Attention should not be devoted solely to the development of those faculties which were strong, but there should be some system of persuasion by which irksome exercises might be rendered as pleasant, as they were strengthening and stimulating. Some reference had been made to the teaching of needlework to boys. There was one section of mankind whom it was certainly not the custom to look down upon with contempt, viz., the sailors. The first thing that happened to a boy in a training ship was that he was set down to sew, and until he could mend his own clothes he was not permitted to come out of the tailor's shop. If he did not make his own clothes he had to submit to some sacrifice in favour of the boy who did make them. So far as men were concerned, he thought it would be satisfactory if they did know a little more about the use of the needle, because he did feel that their dependence was rather humiliating, and, besides, it enabled the ladies to look down upon them from such an inapproachable height. He did not know that men would feel less regard for their mothers and wives and sisters if they were less dependent in that way.

The CHAIRMAN (Mr. WOODALL) then invited the audience to witness a Kindergarten demonstration to be given by Fräulein Heerwart.

ORGANISATION OF ELEMENTARY EDUCATION.

WEDNESDAY, AUGUST 6TH, 10 A.M.

Chairman : The Right Hon. A. J. MUNDELLA, M.P.

THE ORGANISATION OF ELEMENTARY EDUCATION.

By T. E. HELLER.

THE subject placed in my hands by the Committee of this International Conference is so comprehensive in its character, that it is quite impossible to traverse, within the allotted time, one half of the ground it covers, or to indicate, except in barest outline, either the defects of the present system, or the reforms necessary to bring about a thorough "Organisation of Elementary Education" in this country. But, however faint the sketch, and however imperfect the proposed remedies may be, I trust this paper may serve to indicate some points upon which discussion may be profitably raised, and may assist in some degree the satisfactory solution of a question involving some of the greatest and highest interests of the nation.

The present position of elementary education in this country when viewed retrospectively is not altogether unsatisfactory. Within the present century enormous advances have been made. The first impulse was given by the patriotism and zeal of the various religious bodies, a fact which will stand as a lasting tribute to the liberality

and intelligence of the English churches. This impulse was strengthened by the popular movement which followed the passing of the Reform Bill in 1832, and by the enlightened enthusiasm of a body of men who came into power after that memorable event. Steadily the feeling in favour of popular education took wider range, until, in 1839, statesmen of both political parties agreed to invoke the aid of the State in carrying out the education of the people. Pioneered and guided by many remarkable educationalists, among whom, perhaps, the late Sir J. P. Kay-Shuttleworth was the most distinguished, the various Governments from 1840 to 1851 fostered the extension of popular instruction, and raised still higher the tide of feeling in its favour. In 1846, the Minutes of the Committee of Council on Education respecting the Certification of Teachers and the Inspection of Schools appeared, marking another epoch in the movement. Under these influences a body of teachers was called into existence, remarkable for their devotion and enthusiasm, and animated by a desire to second the efforts of their educational leaders. Onward flowed the wave of educational sentiment, until it was impeded and broken among the rocks of Mr. Lowe's legislation in 1862. For a time it seemed as if a dangerous reaction had set in, and even yet the circles of disturbance caused by the shock are apparent. But the tide was strong and deep, and still continued to flow, though at a diminished rate, until in 1870 a new impulse was given to educational progress by the passing of Mr. Forster's Education Act. This Act attempted, for the first time, a real organisation of elementary education, and it has been successful beyond the most sanguine anticipations of its author. By it the provision of proper school accommodation was assured, the attendance of children at school was made compulsory, and a more popular and democratic interest was created in the management of schools. The effect of this legislation is seen in the marvellous advance in the number of school places, and in the increase in the average attendance of scholars, which have since taken place.

Pleasant as is a retrospect of the course of elementary education in England, and encouraging as are many of its results, it would be folly to shut our eyes to the fact that to a considerable extent our educational system is yet unorganised. Like a house to which a wing has been added in one place, a new tower or turret in another, and a large extension or upper storey elsewhere, our present educational arrangements may have a picturesque aspect, and be historically interesting, but at the same time they possess all the numerous inconveniences of a circumscribed and adapted structure. Though there is much to praise there is also much to deplore ; the requirements of the future demanding less waste of labour and material, and more space for further educational efforts. The Report of the Technical Education Commission and that of the Commission on Reformatory and Industrial Schools indicate two directions in which reform has already been shown to be necessary. I am fully convinced that the time has arrived when the whole problem we are met to consider should occupy the attention of a strong Royal Commission.

Before proceeding to indicate the defects in our existing arrangements for elementary education, I desire to state what are, in my opinion, the true objects to be secured by a national system of education. The first great object should be to bring every member of the community within the reach of educational influences, and for this purpose to provide all necessary school accommodation and appliances. The second object should be to secure that the education given is as complete and full as circumstances will permit. It should supply moral, intellectual, physical, and technical instruction, with as much of what is called culture as the individual scholar is capable of acquiring and his circumstances will permit. It should teach the truths of sanitary science and tend to the production of healthy, truthful, intelligent, and industrious citizens, whose judgments have been disciplined and whose training has fitted them for the proper performance of their social, domestic, and political duties.

Assuming that this brief statement of the principal objects of education is acceptable, let us ascertain in what respects our present system satisfies the conditions here laid down. And first with respect to school accommodation. From the Report of the Education Department just issued, it appears that the supply of school places now exceeds the number of children on the school registers, and although many of these places are, on account of their distribution, unavailable, it may be said that the first object of the Education Act, the provision of sufficient schools has been practically attained, or is in a fair way of attainment. But it is quite otherwise with the second object of that measure, viz., the education of every child belonging to the classes requiring elementary education. Compulsion, as applied to education, has done some good, but it has failed to accomplish the object for which it was introduced. Out of a possible roll of 5,384,341, only 4,273,304 are found on the school registers, and of these only 3,127,214 are in average attendance. To quote the words of the Report of the Education Department, "for every 100 children of school age, for whom 87 school seats have been provided, we have only 79 scholars on the registers, and 58 in daily attendance." In spite of the improvement of the past few years, the result shows that compulsory school attendance has proved almost a failure. Another unfavourable and unexpected result of compulsion as at present enforced is the reduction of the average period of school life. The minimum standard of attainment and age which exempts children from compulsory attendance at school has gradually come to be regarded by many parents as the maximum point to which education need be carried. The result is, that the scholars leave earlier and earlier each year, and thus prevent the attainment of a higher level of education which improved appliances and methods should and might secure. I think it probable that we have formed too high an ideal of what is possible in the matter of school attendance, but we cannot be content while only 58 per cent. of those of school age are in daily attendance. The chief cause of the

failure of compulsion is to be found in the faulty administration of the law by the local authorities and magistrates. In many districts the members of School Boards and attendance committees refuse to apply the law, and in other places the magistrates either distinctly avow their intention not to convict offenders, or do it with so much reluctance as to destroy the exemplary effect of conviction. In many rural and in some urban districts the very persons elected to carry out the law of compulsory attendance, are those who infringe its provisions by the illegal employment of children. There is little hope for improvement while this state of things exists, and the only remedies I can suggest are—(1) The formation of School Boards in all districts. (2) The enlargement of the areas of School Board districts. The second of these remedies would bring into the Boards persons with higher qualification, and is desirable on other educational grounds.

We have now to see how far the education given in our elementary schools corresponds with the definition of true education already laid down. The moral effect of the education given during the past thirty years must be pronounced good by all who are competent to judge. Based as it has been on religious sentiment and teaching, it has already worked a perceptible change in the manners, habits, and speech of the people. It has led to a decrease of crime and an increase of temperance and thrift among the working classes of the country. The moral instruction of the people must in future depend more and more upon the character and personal influence of the teachers. It should therefore be the earnest purpose of those who guide and control public education to create and strengthen a strong profession of teaching, and to endow it with those powers of self-government and control which will do more than any State supervision to keep up a high tone of morality and culture among its members. From what has been already advanced it will be seen that I consider the present system fairly meets the requirements of moral training.

The same expression of unqualified satisfaction cannot be

made with respect to the intellectual character of the education given in our elementary schools. It is true that the instruction given is most thorough, and that it is very evenly distributed over the whole number of scholars. I further believe that the average standard of attainment in elementary subjects is higher than in any country of the world. Up to the year 1862 the teaching in English elementary schools was highly intellectual, it had more of training in it than now; but since the introduction of the system of payment by results, a deterioration has taken place in the character of the teaching. It has become more mechanical in its methods and results. There may be now more instruction, but certainly there is less education. The unnatural system invented by Mr. Lowe is now generally condemned, and it is unknown in any country but our own. To it are to be attributed the principal defects of the Education Code and the well-founded cry of "over-pressure in education." I sincerely hope the time is not far distant when the continued efforts of the Education Department since 1875 (and more particularly since Mr. Mundella's advent to office) to minimise the evils of the system will lead to its complete abandonment. The principal defects in the school curriculum spring from the fact that the same Code is applied to all schools, and by the administration of some inspectors is rendered more rigid and inelastic than it need be. It also seems anomalous that under our present system the judgment of the inspector rather than that of the teacher should practically determine the classification of the school, yet this is one of the results of a system of examination by standards rather than by classes. The faulty classification which is produced by this system renders the application of true methods difficult, if not impossible, and it is intolerable that a more rational plan cannot be devised by our legislators and educationalists which would harmonise the educational and commercial interests of the country. Generally with respect to the school curriculum I complain that for a nation of workers and traders it is cast too much on a literary model, and is administered by a body of inspectors whose training and

education give them as a whole the same bias. The result is doubtless an inheritance from the past history of English education, and is a survival of the popular idea which in the 15th and 16th centuries led to the foundation of "grammar schools." It is preposterous that for a pass in the elementary subject "Reading" a child of ten or eleven should be expected to prepare an amount of literary text exceeding that given in any other examination with which I am acquainted. Similarly to secure a pass in "Writing" it is necessary that every scholar in Standards I. and II. must be able to spell and write from dictation every word in *two* books, and in higher standards in *three* books. I contend that less importance should be given to these subjects and more to elementary science and drawing, and to the rudiments of at least one modern foreign language.

Another defect in this part of elementary education is the absence of any effective system of evening classes which would preserve and extend the education given in the day school. Much of that knowledge which is acquired at so much cost to the State by scholars who leave school at the age of eleven, twelve, or thirteen, is lost for all the practical purposes of life, because we have no general system of continuation schools or evening classes connected with the ordinary elementary school. It is true the Code provides aid for such classes, but the conditions imposed on the earning of Government grants are not favourable to success. I find from the Report of the Technical Education Committee that most of the Continental States are in advance of us in this respect; but I trust that ere long an earnest attempt may be made to incorporate into our arrangements for elementary education a recognised system of evening classes for higher elementary and technical instruction. I would even suggest that a limited amount of compulsion should be applied to attendance at evening classes up to the age of sixteen or seventeen. For the present it would be necessary to give to those who have failed to take full advantage of the day school, the simplest kind of instruction, but it should be possible in a few years to make the

evening classes real continuation schools, or schools for further education. The instruction should be of an attractive character, removed as far as possible from that of the "Standards" of the day-school, and should include all kinds of drawing, modelling, and some technical subjects suited to the locality.

With respect to physical education little has been done in the elementary schools of this country. It is true that the innate love of English boys for cricket and other outdoor games has done something to develop their frames and to strengthen their muscles. But much more is possible, and it is to the interests of the nation that some of the time now devoted to mental education should be given to gymnastic exercises, scientific bodily drill, and swimming. No one visiting the schools of Brussels and Paris can fail to be struck by their superiority in this respect. Perhaps in nothing is the absence of organisation in the matter of education more to be deplored than that the new Board Schools which have sprung up all over the country during the last ten years should have been built without any provision for giving physical and technical instruction.

Technical Education has as yet no definite position in our educational system. Its exclusion can be no longer allowed, and we have evidence around us that the public interest has been fairly aroused on the subject. The report of the Commissioners, to which allusion has already been made, shows on nearly every page the vast importance of better technical training to the manufacturing and commercial interests of the country. It is perfectly clear that with respect to technical education many of the Continental States are greatly in advance of us, and not a day too soon have the efforts of the City Guilds and other bodies been turned in this direction. The question now to be determined is, in what manner and to what extent can technical instruction be given in connection with the elementary school. Upon this point I would utter one word of warning, viz., that to attempt to force more subjects into the school curriculum with the present average staff must result in failure for the

new subject and a further deterioration in the quality of the general education, which is already damaged by endeavours to cover too much ground. Our elementary schools are already worked at high pressure, and any attempt to increase it by the addition of new subjects will be positively dangerous. We must, therefore, be prepared to sacrifice some of the teaching now given if we are to make way for definite technical instruction, and we must so modify the examinations as to require less mechanical accuracy in producing results. Again, it is not desirable that the general education of the scholar should be disturbed at too early an age by any attempt to specialise the teaching. Nor even if it were desirable would it be possible to specialise in such a manner as to give to particular sets of individuals the technical teaching adapted to their future calling. At the age of eleven or twelve it is impossible to fix a child's tastes and acquirements, or to ascertain with any sufficient amount of accuracy the probable trade, calling, or handicraft he may adopt. It is therefore manifest that technical instruction, in the sense of education for a particular calling or art, is not possible in an elementary school. But it is quite possible so to arrange the curriculum that a proper foundation for technical teaching is laid in the elementary school. With one exception the specific recommendations of the Commissioners on this part of their subject appear to me to be admirable. This is that the general teaching of drawing should be enforced by making it a part of the "pass" in writing. I have already hinted that "writing" is now a double pass in writing and spelling; if drawing be added, the compound subject will be so difficult, and the chances of failure, even of qualified scholars, so great, that effort would be destroyed. I hope drawing will be generally taught and directly encouraged to a much greater extent than has been the case for some years. We have already succeeded in giving some practical instruction in cookery and in needlework to our elder girls, and I can see no reason why some general manual exercises involving the use of tools may not be given to boys. But this means

more appliances, more time, more staff, and these of course mean more money. The public must understand this, and should be reminded that these desirable additions to our educational arrangements cannot be obtained without further outlay. That this outlay would be in the end highly remunerative I am fully convinced, but it is chiefly in connection with a regular system of evening classes that the contact between elementary and technical instruction can be most effectually made. For instance, it would be quite easy if School Boards had the power of spending money upon the elementary parts of technical instruction, to arrange generally throughout the country, evening classes for higher instruction in drawing than can be given in the day-school, and for special trade classes adapted to the requirements of the various localities. I have been much interested lately in watching the efforts made by a lady to give to girls from twelve to sixteen years of age a technical training in preparation for their work as domestic servants. As a considerable number of the population will always be engaged in this necessary and respectable calling, I can see no reason why such classes as are now established at Notting Hill and elsewhere by private means might not be included in the list of classes for the technical instruction of females.

Having criticised at some length the defects of our present system, permit me to occupy the remaining time at my disposal in giving an outline of the various reforms which appear to me to be necessary in order to secure a proper organisation of elementary education. In the first place, I think it highly important that a more direct connection should be set up between elementary and higher education. But this can never be effectually accomplished until the whole of the educational arrangements of the country are placed in the hands of a responsible minister of education, whose duty it should be not only to suggest and control but also to co-ordinate and regulate the various educational forces of the country. I rejoice to observe the growth of public opinion on this question, and I am confident that the creation of such an office in reference to education could

not happen at a more opportune moment than the present, when we have at the head of our Education Department a gentleman more capable of filling the post of Minister of Education than perhaps any other man in the country.

The number of pupils whose circumstances will allow them to pass from the elementary to higher schools, will always be limited, and it is therefore necessary that care should be taken in selecting those who are destined to rise to the higher schools, and ultimately to the Universities. In order to do this it seems to me necessary that elementary schools themselves should be to some extent graded, in other words, to use a phrase which has caused some alarm in the country, we require higher elementary schools in which the more competent and advanced pupils may receive the instruction which their attainments require, and which will prepare them for the different curriculum of the middle or higher schools to which they aspire. The most elaborate system of scholarships will fail to be of benefit to the children of the working classes, unless this arrangement is made. There are other reasons for the grading of elementary schools in town districts. The present system involves a serious waste of labour, of time, and of results. By bringing together in one school the children of the higher standards real economy would be secured. In many town schools there may be a few children in the fifth, sixth, and seventh standards, and within a radius of half a mile there may be other schools similarly placed. It would certainly conduce to greater efficiency in the instruction of those children were they brought together in a school where they would have the undivided attention of competent teachers for each of their standards. I further believe that the children who remain in the lower standards would be more effectively taught if the limited staff found in most small schools could concentrate their attention upon fewer standards.

Turning now to the management of schools, I find that there are some defects which require immediate attention. There can be no doubt that the educational work of the

country would have been conducted much more easily and effectively had we not inherited from the past the necessity for a dual system of management. Many schools which receive a considerable amount of public money are either mismanaged or not managed at all, and the keen competition which exists in many places between the Board and Voluntary systems does not always remove this defect. One point in reference to the management of Voluntary Schools certainly requires special attention. There appears to be no rule of the Department requiring that schools receiving Government grant shall be under responsible management. It is true that on Form IX. three persons are required to sign their names acknowledging the receipt of the grant, and promising that they will see it applied for the purposes of elementary education, but as a matter of fact a very considerable number of the schools of the country are practically under the management of single individuals. This, I think, is most undesirable. It should be required as a condition of receiving the grant that a properly constituted committee should exist to control the finances and to conduct, in the eye of the public, the management of the school. I may say that in my position as secretary of a large association of teachers I am continually receiving complaints of gross mismanagement, which arise from the fact that the schools are too frequently under the power and control of single individuals, who use their power in a tyrannous manner, often for denominational purposes. In a similar way many schools under the management of small school boards are grossly mismanaged; indeed, within my own experience, I can say that some of the most wretched, ill-staffed, and worst-managed schools are those under small boards in rural districts. Of course there are exceptions to this, but too often the persons elected on these boards are those whose interests are in opposition to the spirit of the Education Act, and whose own want of education unfits them to have the control of the schools in their locality. I believe this evil is also felt in Scotland. I listened some years ago when in Aberdeen to a very able paper on the

same question, and I am prepared to recommend the same remedy which the reader of that paper proposed, viz., that the areas of the School Boards in these districts should be greatly enlarged. County boards would perhaps be too large, but I cannot see any reason why the mapping out of the country into *school districts* of a proper size would not be perfectly practicable and easy. By enlarging the area we might hope to secure men of greater education and influence in whose hands the application of compulsion would be made more effective, and under whose control the management of the schools would be more effectively supervised. Taken in conjunction with a suggestion in the former part of this paper, this conclusion would point to the universal election of School Boards and the disbanding of the School Attendance Committees, which now rank as local authorities in a very considerable part of the country.

Connected with the work of compulsion is that of Free Schools. For many years I have been a consistent opponent of a general system of free schools, but the experience of the past few years seems to show that the difficulties of enforcing the payment of the fees, and even of remitting them in certain cases, is almost incompatible with an effective system of compulsory education. I therefore should welcome with satisfaction the establishment of a considerable number of free schools in the worst parts of our large towns, and I should not be alarmed at a proposal to make the elementary education of this country absolutely free. The friction caused by the various attempts of the London School Board to secure the payment of school fees, and the meagre results which have followed those efforts, induce me to adopt this view. I am convinced that the system of remission which is now being applied in the Metropolitan district, is doing more to encourage hypocrisy and to demoralise the working classes than any recognised system of free schools could possibly do. I am aware that there are many arguments to be advanced against such a system. I have used them myself for many years, but I have found so many practical difficulties under the existing

system that I venture to assert that compulsion will never be effective, unless to a limited extent at least the principle of free schools is introduced into our system.

In the organisation of elementary education attention must also be given to the training of teachers. I had intended to deal with this point, but as it is being discussed in another section of the Conference I refrain from doing so. Permit me, however, to make one suggestion, viz., that the education of the teacher should not be separated so completely from the general education and life of the country. At the present time a large proportion of teachers are selected at an early age, and are confined to the influences surrounding an elementary school during the whole of their career. This I regard as a misfortune. Those who are to prepare the young for their future duties of life should possess not merely scholarship but also a knowledge of the world, of men, and of manners. They should be persons of culture as well as of knowledge. I would, therefore, strongly urge that the teacher should obtain his general education in the same manner and to the same liberal extent as the lawyer, the doctor, or the divine. For this purpose I would limit the operation of the pupil-teacher system, though I should not be prepared to abolish it. The pupil teachers' course should be made to fit in pretty closely with that of the Universities, and I think it would be advantageous if the Training Colleges were themselves affiliated to the Universities, residence in them being allowed to count as so many terms of the University course. The Training Colleges should nevertheless have a definite purpose and special aim. They should do for the profession of teaching what the hospital schools do for the medical profession or the Inns of Court for the legal profession. In them professional training should be given to a very much greater extent than is the case at the present time. If this plan were adopted I believe we should find a great improvement in the attainments and power of the teaching staff of our elementary schools, without any loss of that working force which characterises it at the present time.

In conclusion, permit me to express a hope that the extension of the parliamentary franchise which is now imminent may be followed by a new educational impulse, as was the case in 1832 and in 1867. I believe that the political stability of this great empire, as well as her manufacturing and commercial superiority depends absolutely on the further extension of her educational system. And I have a full confidence that the public interest in educational matters, which renders such a Conference as this possible, is a sure precursor of a new period of enlightenment and progress, and of a still higher destiny for our beloved country.

THE ENGLISH SYSTEM OF ELEMENTARY EDUCATION: ITS GROWTH, ORGANISATION, AND PRESENT CONDITION.

By the Rev. HENRY ROE, F.R.A.S.,

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LIKE most other of our English institutions our system of Elementary Education is essentially a growth. It is difficult for us of the present day, who talk so glibly of our 27,330 separate school departments, with accommodation for 4,670,443 scholars, our 4,273,304 names on the school registers, our 3,705,388 children present on the day of inspection, our 3,127,214 boys and girls in average attendance, and our parliamentary education grant which this year runs up to £3,016,167, to leap back just eighty years and thoroughly to realise how insignificantly small was the seed from which so widespreading a tree has since been developed. For what provision at the beginning of this present century had been called into existence for the education of the labouring poor? Grammar schools, originally founded in great part for the poor, had long ago

been monopolised by a higher class. Parochial charity schools, originated early in the eighteenth century by the Society for Promoting Christian Knowledge, had spread rapidly in London and in large provincial centres; but the system was grievously overweighted by the expense of the clothing and sometimes also of board and lodging; and never, therefore, covered more than a very small fraction of the area in need of the means for providing Elementary Education; so the chief educational machinery available for the poor eighty years ago was the Sunday School on the one hand and the dame's school on the other. It was just about this time that two remarkable men, working upon somewhat diverse lines, began to lay the foundation of our present English system of Elementary Education. Dr. Bell and Joseph Lancaster each in his own way solved the problem how with economy of teaching-staff and money to form large bodies of children into fairly efficient schools; and the National Society started in 1811, and the British and Foreign School Society, finally launched under that name in 1814, were practically the outcome of the efforts of these two pioneers of national education. It is matter of common notoriety that whilst the National Society was instituted "for promoting the Education of the Poor in the principles of the Established Church," and with this object in view has always insisted upon the teaching of the Church Catechism; the British and Foreign School Society limited its religious instruction to lessons on the Holy Scriptures.

To show how limited were the early operations of these two societies, it may be enough to state that the number of schools in union with the National Society in 1815 was 360, with 60,000 scholars; and the number of British schools in 1817 was 260. But both systems throve very rapidly. The National Society, for example, in 1821 claimed to possess some 1700 or 1800 schools with 300,000 scholars; in 1839 it had 6778 schools in 4291 places, attended by 597,911 scholars; the total number of Church schools at that time being 17,341, with 1,003,087 scholars. Similarly the number of British schools increased from 260

in 1817 to 400 in 1827 ; and thirty years later the normal growth was close upon 150 new schools every year. Both societies developed with much success the so-called monitorial system ; both speedily instituted numerous local associations, which in the case of the National Society became Diocesan associations ; both did their best to plant here and there model schools designed to show in its most perfect form the working of their respective methods ; both largely stimulated local effort by the offer of building grants ; and both at a very early period recognised the necessity of *training* men and women to become efficient teachers, and in this way originated the system which has since developed into the training college system.

But the English appetite for national education being once whetted, the demand for its extension soon outgrew the available means for satisfying that demand ; and in 1834 Parliament came to the rescue with at first a limited grant of £20,000 a year, to be administered by the Lords of the Treasury, and to be applied alone in aid of school building. A very short trial of this experiment, however, was enough to show that the Treasury did not possess the proper organisation for administering Education grants ; accordingly in 1839 an Order in Council constituted the Committee of Council on Education, which for the last 45 years has been charged with the duty of superintending the application of all public money voted for elementary education. At the outset the grants awarded were purely for school building ; it being a condition that the school in each case was to be in connection with one of the two education societies, unless special circumstances could be shown entitling it to be treated by itself. The first advance upon this was in the direction of school inspection : and it is curious to recall the fact that in those early days inspectors were supposed to act almost as much in the capacity of advisers as in that of inspectors properly so called.

But how were schools at this period of their history to be maintained? For a good many years after the School Societies were established there were no school fees ; the

whole of the expenditure therefore then had to be met by voluntary contributions and society grants. But for some time before the first Parliamentary grant was voted, school fees—"pence" as they are still called, because at first the common fee was a penny a week—were almost universally charged, both as a means to induce regular attendance and as an expedient for increasing the school income.

The gross income, however, produced from all these sources hardly if ever exceeded from *7s.* to *10s.* a year per head in average attendance, and in many cases fell far short of this sum. Could the Parliamentary grant be applied in part to school maintenance as well as to bricks and mortar? That was the question which was being urged in 1839; and the answer of "My Lords" was that application for such assistance could only be entertained under special circumstances, and with a view to encourage not to supersede local effort. So elementary education struggled on for seven more years; advancing somewhat in the more wealthy neighbourhoods, but often enough given up altogether in the poorer ones, and everywhere showing three great needs—namely, a supply of well-trained head teachers, a staff of apprentices to supersede the inefficient monitors of earlier days, and an annual Government Grant in aid of ordinary school maintenance.

At length the demand for these necessary helps was so loudly raised from almost every quarter that the Committee of Council were compelled to satisfy it by the now famous minutes of August and December, 1846. Under these minutes and their immediate successors, the pupil-teacher system was established; training colleges were subsidized; examinations for "certificates of merit" were instituted; "Queen's scholarships" were offered to the most proficient pupil teachers on admission to the Training College; the salaries of school teachers were augmented upon a scale regulated by the class of the certificate held by the teachers; grants of books and maps were offered at less than half-price; and, best of all, every school in the receipt of a grant was to be visited once a year by one of H.M. Inspec-

tors of Schools. And so hearty was the welcome which was accorded to this new scheme of education grants that within a year of its coming into force some 400 building grants were applied for and obtained ; over 300 students and teachers passed the examination for a certificate of merit ; nearly 700 schools became, as the phrase went, "connected with Government" ; and considerably over 1000 young people were apprenticed as pupil teachers. In 1853, when the Parliamentary vote first exceeded a quarter of a million, the number of inspected schools had risen to 2630, certificated teachers to 1720, pupil teachers to 5435, and the average attendance of scholars at inspected schools to 329,040. By this time, however, it had become but too evident that in order to keep schools from falling into debt, especially amongst the rural population, some additional help was needed in aid of the general school funds. This was supplied in 1853 by a capitation grant for rural districts and small towns which was calculated at a higher rate for small schools, and was only to be claimed in respect of scholars who had made 384 attendances in the year (afterwards practically reduced to 352) ; but two years later all schools were admitted to participate in this grant. From the institution of the capitation grant dates the rapid growth of the Parliamentary votes, which from being one quarter of a million in 1853, exceeded three-quarters of a million in 1861. Meanwhile in 1856 the management of these grants was entrusted to a regularly constituted department with the Lord President at its head, and a newly created Vice-President to assist him : and in 1858 the Duke of Newcastle's Commission began to enquire into the whole question of state-aided national education. That the system adopted up to this time had acted most beneficially in calling out local effort and in training up a very large body of efficient teachers is certain : but that it provided the materials out of which to frame a permanent scheme is now very generally denied. Its principle was to supply the machinery, not to take care that the machinery which was supplied produced adequate results. It secured that children who reached the highest

class should receive a satisfactory education; but it practically took no notice of the lower classes. It had succeeded in ten years in trebling the number of inspected schools, although as a matter of fact the number of Church schools alone at that time was far more than double the number of the schools enjoying the Government grant: there was therefore remaining a vast area totally unassisted by the Parliamentary grant. Moreover the number of different payments was so great as to make the office work well nigh unmanageable. The problem to be solved therefore was four-fold—to get rid of all personal payments, to proportion the grant to the number of children benefited by the school and so to economise the amount of the grant allowed, to make a large part of it depend upon the examination of individual children in the three R's, and as fast as possible to bring in the whole country to share in the benefits of this government scheme of education. The Revised Code, proposed in 1861 and very considerably modified early the next year, must be regarded as the official solution of the problem. Its effects may be very briefly summarized as follows: In the first five or six years after its introduction the number of pupil teachers was diminished fully 30 per cent.; the annual supply of duly qualified masters and mistresses was much reduced; the annual Parliamentary education vote fell off by over £100,000; and new schools were still slower in making application to be put upon the inspected list. On the other hand voluntary subscriptions and schoolpence were both largely increased; and the work done in the three R's was very greatly improved. So matters went on until 1870, when the country woke up to the realization of the fact that whilst much had been achieved since the first grants were administered in 1834, and whilst since 1859 school accommodation, average attendance, the number present at inspection and the number of certificated teachers, had all increased from 66 to over 100 per cent., there was such a vast amount of leeway to make up as could only be dealt with by means of direct compulsion. With a population

verging upon 22,000,000, and requiring therefore school accommodation for over 3,500,000 of children, there was existing accommodation for only about 2,000,000, the number of children's names on the school registers being less than 1,800,000 and the average attendance falling below 1,250,000. To secure sufficient school provision for all who ought to be under elementary instruction, to promote improved regularity in the attendance of the scholars, and to extend the school curriculum somewhat beyond the very meagre fare of the three R's, were the objects proposed to be attained by the Act of 1870, and the Code of the following year. The power to impose a school board upon any parish where the school accommodation was in default, unless steps were forthwith taken to supply the deficiency, was found to be a most powerful lever for accomplishing the first of these objects; for the results in thirteen years are such as to leave but little for the future to do except to keep pace with the growth of the population. During that period of time Church Schools increased their accommodation by over a million of places; other voluntary schools provided additional room for nearly 350,000 children; and school boards made provision for about 1,400,000 scholars. Much good, too, resulted in the way of improved school attendance; the increase in the first five years (during which bye-laws for compulsory attendance were gradually applied to about half of the whole population), being from 1,250,000 to very nearly 2,000,000. The Act of 1876 (which for the first time made it the duty of every parent to have his child duly instructed), succeeded in the next five years in driving into school some 900,000 additional scholars; and the Act of 1881, which made bye-laws for compulsory attendance universal, has added another 250,000 to the attendance. As regards the extension of the range of subjects taken up in grant-aided schools, very considerable results have followed upon the introduction of the so-called "specific subjects" (languages, mathematics, science, &c.,) to be taught to the upper standards under the regulations of the Code of 1871; and still greater results are to be

credited to the provisions for teaching "Class subjects" (as English, Geography, &c.), which were first made in the Code of 1875. And now that the Code has been once more revised, and a special grant has been awarded for *merit* to be assessed solely according to the quality of the results produced, there is very little doubt but that in a few years the annual reports will record marked improvement, not only in the results of the examination in the three R's, but also in those of the higher subjects.

To sum up, then, in few words what may be set down as the chief characteristics of our English system of Elementary Education, I should say (1) first, that whilst about 30 per cent. of our school accommodation is under the control of school boards, the cost of maintenance being borne in part by local rates as well as by the Parliamentary grant, fully 70 per cent. is still in the hands of voluntary school-managers, whose subscriptions take the place of the rates levied by school boards. (2) In case a deficiency in school accommodation is reported in any school district, the Education Department have the power to require that due provision shall be made for the same within a limited time; the "screw" to be applied to wilful defaulters in a voluntary school district being the threat of a board, and in a school board district the supercession of the existing board by a new board, nominated by the Department, and remunerated out of the local rates. (3) Attendance is enforced everywhere by bye-laws, worked either by the school board or by the School Attendance Committee: and although these local authorities are often very remiss in discharging their duties, and the magistrates not seldom culpably lenient in dealing with cases brought before them, there are plenty of districts in which regularity of school attendance has been improved fully 10 per cent. in the past two or three years. It only needs, therefore, that the districts which lag behind should be whipped up to keep step with those in advance to correct most of the evil resulting from irregular attendance. (4) The present provision for teachers, and the means in

existence for keeping up the supply, are eminently satisfactory. Besides a large but somewhat diminishing body of apprenticed pupil teachers, there is a very considerable and rapidly increasing number of duly qualified assistants, and at their head a large array of certificated teachers, whose ranks are being replenished, chiefly from the Training Colleges, at the rate of about 2000 a year. (5) The whole of the work done is examined and judged every year by inspectors and inspectors' assistants organised in districts each superintended by a senior inspector—the total cost of this inspection for the present year being estimated at about £150,000.

Such, in brief, is the system under which the children of the working classes in this country at the present time are being educated, and such too the several stages of its growth in the present century. It would of course be easy to pick holes in it, and to suggest changes whereby its anomalies might be reduced or wholly swept away. But it exists, and it very fairly performs its required functions; and, moreover, it allows of that variety and that local management which are so dear to the heart of most Englishmen — and these are sufficient reasons for not wantonly attempting to replace it with something more uniform in its organisation. Still more important, it is a compromise; and although, like all other compromises, neither of the two opposing parties are quite satisfied with it, yet upon the whole it works with comparative smoothness. And if any bits of grit, as they come into view, are carefully removed by slight readjustments of the Code, and the wheels are properly oiled by mutual forbearance and concession, it is safe to prophesy that under this our mixed system of elementary education England will soon be well to the fore in the list of educated nations, whilst still retaining her old character of being morally and religiously without a rival.

DISCUSSION.

Mr. EDWIN CHADWICK, C.B., said the receptive powers of children, even of a high class, were not active for more than three hours a day, and it had been proved that all study for a longer period was detrimental, and that therefore it was a waste of time and effort to attempt more. It was shown by inspectors, that the greater part of the children never applied that which they had learned. They learned grammar, but went on speaking ungrammatically. The half-time schools produced good results, but these were very little visited—even by persons in the position of the Chairman.

The CHAIRMAN (Mr. Mundella): I have visited more half-time schools than you have whole-time schools. I have visited half-time schools in Lancashire, and it is quite true they do marvellously good work.

Mr. CHADWICK was glad to hear this, and hoped it would lead to practical action upon the principles demonstrated. The marvellously good work was this: that they got through the three R's, and attained the 4th standard quicker and in larger proportion than the pupils in the whole-time schools. In the whole-time schools children were not expected to get through the 4th standard on the long-time system till after the tenth year; but the inferior children in the district schools reached that point in nine and a half years. In Germany they took children of six years and sent them at their ninth year into a standard equivalent to the English 4th standard. In Germany the mischievous perpetual examination was forbidden; the examination took place at the end of the period of study, or at the time of leaving. That system might be introduced into England. In the Scotch schools the first code was declared by the whole body of teachers to be mischievous, morally, physically, and intellectually; the second code, it was declared by them, intensified the evils of the first code, but what would be the effect of the last code he did not know. Teachers had declared that if left to their own devices they could save two years of the present

school time. At the Feltham Reformatory School, where they received boys from the board schools, the boys were found unapt to work, and apt only at picking and stealing. After treatment at Feltham the boys were sent out with an ability and a disposition to work, and 86 per cent. of the boys were sent out in good form. The present system of teaching in elementary schools compelled the neglect of physical training. Foreign nations paid much more attention to this physical training than we did in England. In Sweden that was especially the case. Even compared with Belgium, our English system was very much at fault in this respect. Certainly we had made some advance in the half-time system. It commenced in the District schools, and then was tried in the Reformatory schools, where it had been eminently successful in reducing juvenile delinquency according to the testimony of all prison masters. But he wished to press on those in authority the mischievous result of allowing the teaching of lessons to be carried beyond the tried and demonstrated mental receptivity of children, or less than three hours a day—all beyond which was mischievous waste of money and time, and overpressure; and compulsory attendance should be limited to the receptivity.

Mr. SYDNEY BUXTON, M.P., said, that if Mr. Chadwick had proved anything he had proved that the more ignorant children were the better they were. Well, he would not attempt to argue that point, but desired to touch on one or two points in the papers that had been read. Mr. Heller had said in his paper, that the system of compulsion had proved a failure. He must entirely disagree with Mr. Heller in that. Not that he would say that the system of compulsion had been perfect, but if it had not been for compulsion, the attendance at school would have shown a much worse average than it exhibited now. The children who attended school before 1870 were children of parents who wished them to be educated; whereas the school boards had had to deal with children of the lowest strata of society, who could not be expected to attend regu-

larly unless compelled to do so. In spite of all such drawbacks, the attendance was steadily increasing in England. Both Mr. Heller and Mr. Roe had referred to certain stumbling-blocks in the way of education. He wished the Home Office would turn its attention to the way in which some of the London magistrates obstructed the work of education. The Education Department had, over and over again, drawn the attention of the Home Office to this matter, but nothing effective had really been done. As far as the question of attendance went, Mr. Heller ought to recognise the fact that it was largely a matter for the teachers. The average attendance at board schools depended largely not only on good teaching, but on the moral character of the teacher. Some teachers, when moved from school to school, would always contrive to keep up a good average attendance ; while other teachers would always have a bad average attendance. Therefore the board must be ably seconded by the teachers, or the result would not be satisfactory. Mr. Heller had also fallen foul of the system of payment by results, and had referred to overpressure. He believed the complaint of overpressure had been largely exaggerated. It was, at any rate, a moot point and a matter for argument. As far as he was aware, most of the cases of overpressure that had been alleged were not due to any system of education, but were cases in which the children had really overpressed themselves. There were in all schools nervous and anxious children, who wished to get on too rapidly, and who, consequently, overworked themselves. Mr. Chadwick said, that a child should not be at school more than three hours a school day. On the average, in elementary schools, the children did not attend more than three days a week, so that they did not study more than three hours a day on the average in the schools. It was a question of figures, and he believed that was the actual fact. 70 per cent. was the average attendance.

[The CHAIRMAN : 75 per cent.]

The children only went to school five days a week ; but

they were likely to be more healthy in the schools of the present day than out of them. He disagreed with the idea they they ought not to have one system of education applicable to all schools. It was essential, he believed, that one code should be applied generally to all elementary schools, though he freely allowed that there should be as much elasticity as possible, and this had been provided for in the recent instructions to inspectors. Payment by results was the only system which would justify Parliament in voting money for elementary education. He believed it was the only system which would secure that certain classes of children should not be neglected. In all systems of education there would be a certain amount of overstrain. He thought it advantageous that the matter should be thoroughly discussed. Those who held extreme views as to overpressure had done good service in drawing public attention to the matter. He did not himself believe that there had been much overpressure; but, at any rate, public attention having been drawn to the subject, he felt sure that if it had existed, it would be largely diminished in future. He agreed in the desirability of cultivating physical exercises in schools. He thought that training colleges and school boards should see that their teachers were physically fitted for their posts. That might be done through some more thorough form of medical examination before the students were allowed to enter the training colleges, so that those who were unfit should be precluded from entering the profession.

The Rev. W. J. EDWARDS concurred with the remark of Mr. Roe, that the grants for education had been hitherto well administered; but, at the same time, he agreed with Mr. Heller, that very much more remained to be done. For we must bear in mind that elementary education had nothing to do with the poverty or the wealth of the parents. Elementary education was required as much by the rich as by the poor. It was said by the old philosophers that water rose in pumps, because Nature abhorred a vacuum, but they found that Nature did not abhor a vacuum above the height

of thirty feet. So we might say that the Government abhorred a vacuum in the minds of children who could not pay more than 9*d.* a week, but beyond that, it did nothing for those who could pay more than 9*d.* a week. For his own part, he would at once offer a voluntary examination in all the subjects of the code, and also in Scripture History, to every child in the British Empire; and, after a time, he would insist on the examination of all the children in what are called the three R's. Something of the same kind of voluntary examination was already offered in the Science and Art Examinations. That was open to all, but there was no satisfactory method of determining the progress of children educated at home or in private adventure schools. Many of these, it was well known, failed at the various competitive examinations in the preliminary subjects. They and their parents would be spared such disappointments, if there were such an examination as he suggested. Here, in the Health Exhibition, he could but urge that the question of education was at least as important as those of health and food and clothing. Some might say that his proposal would add to the grant, but he would have parents of the middle classes pay sufficient fees to meet the expense of the examination of their own children. But with regard to schools in receipt of grants, he would have every child offered for examination by the Government Inspector for its own benefit, but it should not be a question of grant unless the other conditions for earning the grant were complied with. Nothing could be worse for the children than the present system of presenting certain children for examination, and leaving others not to be presented, because they had not been a sufficient time in that particular school. For there was the greatest danger that they would be neglected by the teachers because they could not be presented. He would not propose an inspection of every school in the country, because in schools not receiving grants such interference might be resisted; but if the masters and mistresses tried to dissuade the parents from sending their children to such voluntary examination, by

saying that it would do them no good, the parents could at least answer, "We will try it." He would not propose that each child should be expected to make a certain advance, as now, from one standard to a higher standard each year, but the details of the examination could be so arranged that each parent could be informed what advance each child had made in each subject each year, and thus they could compare the progress of their own children with that of others of the same age—guided by impartial information. It might be urged by some that he had forgotten the Oxford and Cambridge Local Examinations and those of the College of Preceptors. Not at all; but his objection to them was that they did not and could not insist upon all the children being presented, but only examined the clever children who were sent in, while the rest of the pupils probably had not much pains taken with them by their teachers. Some might object to compulsion in any shape, but it ought to be remembered that vaccination was compulsory, and in matters of education it would be equally beneficial to the nation that the children of all classes should be treated in the same way.

M. CH. BULS (Burgomaster of Brussels), said that as at that moment they were discussing the question of the English systems of elementary education, he had thought it might interest them to know what they had been doing in the same direction in Belgium in recent years. Before 1878 the educational programme in Belgium had been excessively limited. Their ambition scarcely extended beyond the three R's, in fact. Having made in the year named a radical change of system and enormously extended the list of subjects to be taught, they had, perhaps, gone too far in the opposite direction and had overloaded their programme. Not satisfied at Brussels with the attempt to train the mind alone, they had included in the table of subjects Manual Culture. In endeavouring to enable their pupils to apply their powers to greater profit they got at first a result they had not looked for. The son of the farmer and the workman, no longer content to follow the handicrafts or exercise the business of their parents,

endeavoured to find places as clerks or employés of the government or the municipalities. In his capacity of Burgomaster he had a certain number of places at his disposal, and he had innumerable applications from these good people, who constantly urged the fact of the superior education of their sons as a natural reason for making the claim. "You know, Mons. le Bourgmestre, that Pierre has learned to write beautifully, and it is impossible to expect him to remain a workman like his father." In that condition they might make 6000, 7000, or 8000 francs a year, but as employés they would earn 1200, 1300, or 1400 francs a year, and thus the young man becomes a poor employé (*misérable employé*). Industrial tasks and manual exercises in a primary school cannot make boys carpenters, saddlers, or locksmiths, but in such schools the powers of observation may be so cultivated that in whatever kind of work the pupil engaged he more quickly became expert in the work when once he entered a workshop. The first error repaired, they hoped now to find a greater disposition of the sons to follow the employments of their parents. The Government by which they had the misfortune to be superseded had relegated the task to other hands, but there was some hope that the change would be only temporary. With regard to the question of examinations and competitions they had such tests in Belgium. He had always observed that the result of these competitions was some modification in the syllabus ; but it was the teachers who regulated them for themselves. Those were the experiences he had to offer, and he hoped the points in the educational system of his country that he had mentioned might be found of interest in this country.

Miss EDITH LUPTON said the question of elementary education was necessarily of importance to all school managers. The Government, by their system, expected every child to pass the same standard at the same age. No doubt many children failed to do this, but the Government did not give grants to the children who failed ; it only gave the grant to children who passed in all subjects. Such a

system was too rigid. Mr. Fitch had said that the system was not so rigid, because there were many modifications. She did not believe in the modifications. A child might be kept two years in the same standard if it had failed twice in the same subject. But she had known children fail in regular sequence in reading, writing, and arithmetic, and under these circumstances this rule of the department could not operate at all. A delicate child might be exempted from examination—in fact, teachers were glad not to be obliged to take pains with such children. But parents wanted their children educated, whether they were delicate, or stupid, or strong and quick. They ought all to be educated according to their capacities, and this required that different treatment should be applied to different children. To use a homely phrase, they could not expect to "make a silk purse out of a sow's ear;" and she believed that the principal cause of overpressure was the attempt to make silk purses out of all our poor little pigs' ears. The great difficulty in dealing with children of varying ability was on account of Government interference and the rules in regard to Government grants. She believed the managers of schools would be perfectly able to regulate education if left to themselves, and she thought the Government ought not to interfere in the management of the schools. In regard to the position of the teachers, it was a very responsible one, and no one ought to be placed in that position unless perfectly competent; but the system of judging of the capacity of a teacher by the grant earned caused great distress to the teachers, and managers, and everybody, because, by it, the sole authority in the school was the Government Inspector. It was the present system of inspection that was responsible for the greatest part of the overpressure in schools. The inspector in four or five hours had to do his inspection, and also to report on the moral and physical condition of the school. How could he do all that in so short a time? It was perfectly monstrous to ask him to pronounce at all on the moral and physical condition of a school after so short a visit. Such matters

ought to be left in the hands of the managers and teachers; and they ought to be allowed to do as they thought fit in regard to children in all circumstances. They required different classes of schools for different classes of children and for different neighbourhoods. As to compulsion, it was both a good thing and a bad thing. It was a good thing, inasmuch as they got children into the schools who would not otherwise be there; but it was a bad thing, because it gave rise to the belief that they educated the children "by contract," and that the parents had nothing to do with it. Compulsion took away the personal responsibility from the parents; and in that respect its effects were deadly. Compulsion had, no doubt, been of some use, but it did not now meet the requirements of the people. There was still a large number of children who ought to be at school. The reason was because those children belonged to a class of society which the police magistrate did not reach, and which the law did not reach, and which could only be reached by missionary effort amongst the homes of vice and poverty. It was no use to send parents of that class to prison, for fine and imprisonment were their normal conditions of existence; and parents suffering from sickness and poverty should not be treated as criminals when they had neglected to send their children to school. Such a course was productive of more harm than good. Cases of those kinds required kindness and missionary effort, and to treat them differently only exasperated the people.

Mr. WILLIAM WILLIAMS (senior inspector in Wales) said he could agree in nearly all the points advocated by Mr. Heller. The difficulties of compulsion had been alluded to. He had seen a great deal of the working of the Act of 1870, and the compulsory powers of that Act. In London the Act was carried out by a large board who took an interest in education and paid attention to their duties; but in the country the boards were not unfrequently divided amongst themselves as to the propriety of enforcing the compulsory clauses. The remedy suggested was that the board should be made larger; but a good deal of the

difficulty arose from apathy, such as that at the board of guardians when the Attendance Committee was left to do its business after all other matters had been disposed of, and the members were anxious to get away. A difficulty also arose from the apathy of magistrates in many places. Some magistrates were glad of any excuse not to convict persons for neglecting to send their children to school, and when obliged to convict would only inflict a fine of *6d.*, and even that was often not levied. This was a case for the interference of the Home Office; otherwise the evil would remain. Another difficulty in the country was the want of uniformity in the bye-laws made by the various school boards. As to the classification of the children Mr. Heller had said that depended on the will of the inspector. A good deal had been said on that question; but he was at a loss to know what better classification than the present could be adopted. The present system of classification was not a rigid one. Allowance was made for all sorts of children; but it was impossible to organise a system that would meet every individual case. Arrangements were made so that bright and quick children could go on faster than the code required, whilst dull children might be exempted. He agreed in the importance of physical training, and that more attention should be paid to it. People had often complained that the result of the present system of keeping children at school till they are twelve or thirteen years of age, is to make them fit to be clerks, but unfit for arduous employments requiring physical strength, such as agriculture. The remedy for this seemed to be a compulsory system of physical training in schools; and teachers should not be allowed to leave the training colleges without passing an examination in the principles of physical training and being able to drill children. It would be better to do this, even at the expense of leaving out of the curriculum French or German, Greek or Latin.

Mr. ROWLAND HAMILTON said the social and economic aspect of education was the point which had always interested him the most. Until they had a sound basis they

could not have a sound organisation. He had no lack of interest in the higher University education, or in technical education, but he felt there was a special irksome duty imposed on those who undertook the charge of national education, in regard to those children who, from natural defects and unfavourable surroundings, were most likely to lag behind in the struggle of life. There could be no greater mistake than to suppose that such children did not require such elementary teaching as was expressed by "the three R's." Often, no doubt, wholly illiterate people obtained distinction and wealth; but children of inferior natural ability most of all wanted the assistance which some knowledge of reading, writing and arithmetic could afford. It was this consideration which enabled him to sympathise with that great, though unpopular, change, which was initiated by Mr. Robert Lowe's code of twenty years ago. Those who remembered the evidence before the Duke of Newcastle's Commission would know that the teachers claimed to be judged by children in the first and second classes, though that those children could not read, write, or cipher, was clear from the reports of the inspectors both of the Commission and of the Education Department. Therefore some practical test should be maintained. He had never regarded reading, writing, and arithmetic as education; but it might be fairly presumed that education suitable to the class had not been afforded, when the larger proportion of the pupils did not know how to read or write or cipher. Until that minimum test had been satisfied, they could not be sure that public Elementary Education had been carried down to that important substratum of children who must inevitably be a burden to the country, unless they were qualified to take their place in the ranks of self-supporting industry. It had been asserted that the standards of the code were rigid and unelastic. But in practice it was not possible to make any such standards rigid. Those who criticised the code should look at the "instructions" recently given to the inspectors. And having had the honour to be connected with the Department soon after the introduction

of the Act of 1871, he could say that the spirit of those instructions was by no means new. It was recommended that four sums should be given in the third and fourth standards, and if the child accomplished *two* he should pass. If the children were deliberately trained to pass only in half of the lessons set, the code might then, no doubt, appear to be rigid ; but that was not the intention with which it was framed. He quite sympathised with the proposal made by Mr. Heller, that the evening schools should be "continuing" schools, and the matter was one of very great importance. It was very desirable also, as had been suggested, that teachers, especially in the country, should be more in sympathy with those about them. This point had struck him forcibly in 1871 and 1872 during his work in the country districts. The teachers too often seemed to have no ideas in common with the parents on any subjects. Some speakers had mentioned how the education of children who showed no marked capacity was set aside and attention given to those who might do honour to the teacher in their course to the University. There was something to be said for that in the higher class of schools, in so far as some only are fitted for a higher intellectual course and should be advised to persevere in it ; but no such reason was valid in the lower stages of primary education, where they could not give less than that *minimum* of instruction which was absolutely required to enable children to maintain their independence hereafter ; and therefore the public elementary teacher could not say to the child, " You are not worth teaching : you had better go and follow some other course of life." In regard to the proposal to examine the whole of the children of a district, there was in one of the lapsed Acts—that of 1858 he believed—a proposal that Her Majesty's inspectors should not only report on grant-aided schools, but should also give a report on the state of education throughout the whole district ; and he hoped the time would come when some such reports might be obtained of the state of education in every district of the country.

Mons. LANDOLT, Delegate from Berne, said that in

Switzerland education was compulsory. At first they attempted too much, and had to circumscribe their teaching. But that teaching was supplemented by a meal of milk and bread or soup, at noon, each school-day for the poor, supplied, not by the State, but by voluntary effort. There were no hungry stomachs in any of the schools.

The CHAIRMAN (Mr. Mundella): For how many years have your children to attend school compulsorily?

Mons. LANDOLT replied that in the country districts boys both worked and went to school till twelve years of age, in some parts till fifteen; but in the towns education was compulsory till fifteen years of age, and in the country also in the winter season. The school hours were six hours per day for five days in the week.

The CHAIRMAN: I want to show what the Swiss do, because this has a great deal to do with overpressure. I believe they make an average attendance of 90 per cent.?

Mons. LANDOLT: 91 or 92 per cent.

The CHAIRMAN: And they pay a fine for absences?

Mons. LANDOLT: They are fined 3 francs if they are absent one-sixth part of the attendances they should have made.

The CHAIRMAN: They are fined by the school boards at once; and the fines, I believe, are cumulative. I would ask you, is not each child in your canton taught two languages?

Mons. LANDOLT: That is in the secondary school only.

The CHAIRMAN: But in many of your schools in Zurich the pupils pass in two languages?

Mons. LANDOLT: Yes, in all the secondary schools, and several primary schools. There are many schools to which children have to go six miles, even in winter, in deep snow.

The CHAIRMAN: The night schools are also compulsory?

Mons. LANDOLT: All schools are compulsory and free till fifteen, and in some parts for forty hours in a winter till eighteen.

The CHAIRMAN: The locality, and not the State, provides the income of the school.

Mons. LANDOLT: The State gives a certain remuneration, at most, a fifth part of the pay of the master in secondary schools, and in the gymnasia, the half.

The CHAIRMAN: Do you mean the canton?

Mons. LANDOLT: Yes.

The CHAIRMAN: The canton and not the Bund. It all comes out of local taxation. Every canton provides its own schools by local taxation.

Mr. WHITE: Does the income depend on the individual passes of the children?

The CHAIRMAN: Certainly not. The two things do not depend on each other. Every child, I believe, is examined by the inspector every year in order that it may be moved up a class, or to ascertain the diligence and the method of the teacher.

Mons. LANDOLT: Yes.

The CHAIRMAN: He must be examined every year, in order that he may pass up, and he cannot remain more than two years in any one standard.

Mons. LANDOLT: Yes.

A MEMBER: On what principle are the grants awarded?

The CHAIRMAN: There are no grants at all. The gentleman does not understand that the entire money assistance comes from the canton, that is from the local rate. (To Mons. LANDOLT:) Your schools are all free?

Mons. LANDOLT: Yes, both the primary and most of the secondary.

A MEMBER: Who examines at the end of the year?

Mons. LANDOLT: We have school-board inspectors, but they do not judge the school alone, but also the master and manager (applause).

The CHAIRMAN: I am glad to hear our teachers applaud that, and I hope now they will, in all localities, be advocates for the abolition of all grants (renewed applause).

A MEMBER: Will you tell us anything about the standard of the teachers?

Mons. LANDOLT: All our teachers are well trained, and we have no pupil teachers.

The CHAIRMAN said they had now arrived at a time when no more speakers could be taken, he himself would be obliged to leave at one o'clock, and it would probably be the wish of the section that the discussion should be adjourned, seeing that it was so eminently an interesting and satisfactory one. He was sorry he would not be able to attend in the afternoon, and perhaps he might under the circumstances be now allowed to make a few remarks. He was in that position which every minister was in. A minister could not always do what he would : he must do what he could. In respect to education he was essentially what the French called an opportunist, doing the best he possibly could under the circumstances. Our system of education could hardly be called a system : it was a growth, yet it could hardly be said to have grown up ; but, as he had once heard John Stuart Mill say of our manufacturng system, it had been thrown up. It was remarkable how like our educational system was to our constitution. Our constitution was not symmetrical and harmonious, nor was the educational system symmetrical and harmonious ; but, after all, it was marvellous how much had been done under it. He thought they would all admit that. Before proceeding to speak of Mr. Heller's paper he wished to express his satisfaction at this discussion. He was delighted to find that nobody was satisfied, for dissatisfaction was to his thinking the condition precedent to improvement. If there had been a large party in the room who had said that they were perfectly contented with things as they were, and if they had represented a very large party in the nation, much progress could not have been hoped for. For his own part he was far from satisfied ; but he could not make bricks without straw, and he had to deal with public opinion, and with our educational system as he found it. It had grown, and what they had now to do was to exercise some patience, some forbearance, and some consideration for the children ; and, more than all things, to introduce a higher tone, a higher ideal, and less selfishness into the consideration of this great question of education. He knew that many of the teachers

were hard worked ; so was the Vice-President. None of them worked harder than he did or watched the progress of education with more anxiety. He was sometimes called an educational enthusiast, but he believed very much in a passage in the Talmud which said, "The nation shall be saved by the breath of the school children." It was a noble sentiment, and one which it would be well if all English people would take to heart. Now, when he looked at the condition of large masses of the population his conclusion was that in order to promote intelligence, to diminish intemperance, to remove the sources of crime, and to make capable citizens, they must begin with the child and they could hardly begin too soon. If they were to remove blots on our social system they must begin before the child was qualified for the reformatory or prison : and they must begin early enough. He was therefore an advocate of compulsory education, but he entirely differed from Mr. Heller when he said that "it might be said to have failed." Mr. Heller wanted every child to be in attendance and to make the full number of attendances. That was his ideal, and that was his (Mr. Mundella's) ideal too. But Mr. Heller recognised that there were such persons as county magistrates and stipendiary magistrates even in a city like London, and that there were such things as school boards and school attendance committees who tried how not to do it, and all the public opinion that could be brought to bear and all the legislation that could be passed, could not force them to do what we know to be their duty. But there was something more. There was in England a low public ideal of education ; he was ashamed to say it, and the higher they ascended in the social scale the lower was the ideal of what the child should be taught. If they wanted to find the highest place or the circle where the idea was that education was somewhat of a bore, and that only just enough of it should be given to the children to enable them to read their Bibles and to conduct themselves decently and to be very willing and, should he say, rather servile dependents, they must begin with the House of Lords. He was not speaking of

them as a political institution, but of what was the prevalent tone of the higher classes of society. Going a little lower the next place where they would find the least appreciation of education was the House of Commons, and going through society generally it would be found that the highest appreciation of education prevailed in the middle and in the upper stratum of the artizan classes, coupled with the greatest desire to benefit the great masses of the people of this country. If improvements in education were advocated they were told at once that a fanatical hand had got hold of the educational machine and that they were moving altogether too fast. Notwithstanding the system might be very defective, arising out of the circumstances under which different ministers had to deal with the different condition of things they found, yet he (Mr. Mundella) would say with Mr. Roe that marvellous progress had been made. At the time of the passing of Mr. Forster's Act the number of children on the rolls of the elementary schools in England and Wales was 1,660,000, while to day there were more than 4,300,000. Such a growth was unprecedented in any country in the world, and was due mainly to the compulsory creation of board schools into which the children could be brought. He took some exception to Mr. Heller's figures, though they were founded on the returns of the department. Mr. Heller stated that out of a total possible roll of 5,384,000 children only 4,273,000 were to be found on the school register. That was quite true, but then it must be remembered that the possible roll of children included all children between the ages of three and thirteen, of whom none between three and five need attend, and of whom a great many did not attend. They had to be eliminated to begin with, and next the children who passed out of the schools before the age of thirteen. There were between 8000 and 9000 parishes in England where the fourth standard was the standard of total exemption, and there children passed out of the schools between the ages of eleven and twelve years. Then, again, there was a mass of half-time labour much larger than appeared in the returns of the Education

Department, because, as Mr. Roe said, the beneficially and necessarily employed were a very large class. If these half-time attendances were deducted the average attendance of the children in the country was enormously reduced. Notwithstanding all this, there were 4,300,000 children on the rolls of the public elementary schools in England, and they made 73 per cent. of the whole attendances, and that was a tremendous improvement upon any state of things previously known in England, and far beyond the expectations formed even within a very few years. Let them not therefore undervalue the system under which these marvellous results had been effected, and which, he believed, was doing a vast deal to make England an educated nation. He would not live to see the realisation of his own ideal of elementary education, and perhaps no one in the room would ; it would involve vast changes in the system, and could only be brought about by getting one generation educated. The first thing to be done was to get rid of the ignorance of the land. When we had got an intelligent people they would take care to educate themselves. He quite agreed with Mr. Heller as to the apathy of the school authorities. He did not know how many letters he received every day, and he could not express how much it was sought in the replies to quicken the local authorities ; nor yet how bye-laws had been gradually formed. There were, in 1880, 7000 parishes in England that had no bye-laws at all ; they had all bye-laws now : that was a striking fact. Now what did he find in some districts ? The first standard was the standard of half-time, and in others the third standard was the standard of total exemption. There were still twenty-three districts where the third standard was the standard of total exemption. His whole business had been to raise these standards, but it could only be done gradually. Local authorities could not be compelled to raise their standards except by one sweeping Act of Parliament, which he was afraid they were not quite ready for. He did not know what the new voters would do ; they might give a new impulse, and he believed they would : but there was no desire in the minds of fully one half the members of the

House of Commons to raise the standard of exemption. It was the fourth standard in thousands of cases; in many instances the fifth; and in some instances, where there was an intelligent School Board and a large population, the sixth. A great improvement had therefore taken place in that respect. Of the average standard of attainment Mr. Heller spoke very highly. He (Mr. Mundella) could not quite adopt that view. While speaking well of what had been done, he thought the average standard of attainment in this country would not compare well with other countries. Speaking in the presence of distinguished representatives of foreign countries — Belgium, France, and Italy—he did not regard the standard of attainment in those countries as a high standard. They were behind and we were behind: they had their ideals, but they had still their work to do. Nor did he regard the American standard of attainment as a high standard, he would rather take Scotland. Scotland had come to the front very fast, and had a very much higher standard of education than England, France or Belgium; and, still more, he would take certain cantons of Switzerland, the little kingdom of Saxony, and some of the German states, if he wanted to illustrate his own ideal of a high standard of elementary education. Many things had been quoted by Mr. Heller as objectionable. The code for instance. Of course there would always be a bad code. There never was a good code. He had inquired in every country he had been to and he found that the code always was a bad code. In Germany the teachers were just the same: too much was expected of the code, and when the inspector came once a year to examine the children he was very arbitrary, and especially in France he heard that the inspector required too much, and that the code was not as elastic and not as suitable as it ought to be. Then, Mr. Heller spoke of payment by results, and, in the minds of some people, the system of payment by results appeared to be at the bottom of all the difficulty. But when it was proposed to do away with payment by results, that was proposed which would

effect an entire revolution in the system of education. The locality must find the money. Parliament would not be found to vote three, four or five millions a year without having some test, and if they simply left it to the inspector's report to say whether the work was fairly done and whether the school was good, bad, or indifferent, and if he did say sometimes good, sometimes bad, and sometimes indifferent, they would have the worst code that could possibly be devised by man, because the school would find itself deprived at a stroke of its grants, the teacher would find himself deprived of his reputation, and there would be no means except the judgment of the inspector of testing the condition of the school. Mr. Heller said also that the curriculum was too literary. The curriculum was what they pleased. It very much depended upon the teachers and upon the managers, and if the managers would only take sufficient interest in their own schools, the curriculum need not be too literary. Then Mr. Heller said he would introduce more elementary science, drawing, and modern languages, but how the people in high places raged if a few children were taught French and German, though in the presence of foreigners he was ashamed to confess it. It was a disgrace to us that it should be so. Abroad he had seen children in what were called the higher elementary schools, speaking two languages besides their own, and not merely learning the nouns and verbs. Mr. Heller said that technical education had had no place in our system. He (Mr. Mundella) was very glad to tell him that on the previous evening he had received a telegram from Mr. Scotson of Manchester, saying that in his higher elementary school, a type of school which ought to exist in every large town, two of his lads had just taken the new science scholarships and would come within a few days from that time to be under Professor Huxley at South Kensington ; and there was no reason why there should not be more. In reference to the question of reforms with which Mr. Heller had dealt, he wished to say a word as to free schools. Everybody who advocated free schools advocated also a revolution. It meant a revo-

lution in our schools, and he did not know how the voluntary schools would get on under a free school system, and they represented over 70 per cent. of the whole. Were the people prepared to give to voluntary managers, Nonconformists, Churchmen, and Roman Catholics a sufficient grant from the State to enable them to conduct all their schools and pay their teachers and make them free. That was a very big question, and there would be a great deal of fighting before this state of things was brought about. It would be much easier to do this in Scotland where there were scarcely any voluntary schools, but even there the question would be a very difficult one. The ratepayer would step in, and what he would say in England especially if the whole cost of education were put upon him he could not tell. If the schools were to be made free, school managers would also go in for making them very good. They would say: "We are not going to have our schools starved: let us have a good staff." It meant that from three to five millions of money would have to come from some new source, and as he had said it was a question which involved almost a complete revolution of our educational system. To go for a moment into the land of Utopia he would tell them what he should like to see. There would some day be a Vice-President of Council or perhaps a Minister of Education who had realised what he had sometimes dreamed of. In the first place, how many years should children be kept at school? Were the English people prepared to compel attendance up to fourteen or fifteen years of age like their poor friends in Switzerland? Let them answer the question.

A MEMBER of the Conference suggested that there should be half time from twelve to fifteen years of age, in rural districts.

Miss LUPTON: And in towns, too.

The CHAIRMAN said that there appeared to be a good deal of disunion in the meeting on the subject; but let them try to propose it in one of their own districts. Let them try to persuade the community where they were most influential, to carry it out, and then see where they were. This question was at the root of the whole thing. Children

could not be turned out mentally, morally, and physically well-trained if they were to leave school at ten years of age. The thing was an impossibility. Though they could not in their own lifetime hope to emulate the Swiss, they might come to fourteen as the limit, as they were about to do in Scotland, and if full time up to twelve years was insisted on, and half time beyond it, they would have realised a very respectable ideal. Having determined how many years the children were to be taught, the next question was how were they to be taught. In the first place, what sort of schools were they to be taught in. That was a very large question. If they were to have good schools, ideal schools, it would involve the sweeping away of a good many of those at present existing, a great many more than was imagined. What was to be the organisation? Mr. Heller did not tell them this. How many children were there to be in a class, and what sort of teacher at the head of the class? His own opinion was that there ought to be a class-room for every forty or fifty children. A school without a regular succession of class-rooms was not in accordance with his ideal. There must be good buildings with excellent playgrounds and opportunities for gymnastic exercises. He agreed with much that had been said by one speaker as to the necessity of improving our teachers. He had great respect for our teachers, many of whom had, under the circumstances, done wonders for themselves as well as for the children under them. But he wished that teachers were more men of the world, and that more of them were university men, with more of the training of clergymen and the members of the higher professions, and men of greater general culture. If they were to have these better teachers, were there to be pupil teachers? He was himself a heretic with regard to pupil teachers. He always said that the system had done great things, and done them very cheaply; but there was another word sometimes associated with cheap, and "cheap and nasty" had become a proverb. The long hours during which pupil teachers worked was a subject that he had tried to deal with, and he was rejoiced to find that the school boards were taking it up. He was thankful to the London

School Board for the half-time system, and to Nottingham for its sixteen hours a week, and to Leicester and other towns which were following in their wake. Thirty-two, thirty-three and thirty-four hours was too long a time to require the pupil-teachers to work. The pupil-teacher was made the drudge of the school, and had to come first in the morning to prepare everything, and to remain afterwards to clear up ; to be back first from dinner, or not to go to dinner at all ; to coach up the backward children, and do all sorts of things besides teaching. Too much had been expected of the pupil teacher, and he intended to be very strict as to his maximum for the pupil-teacher, which was twenty-five hours ; where he found that the pupil-teacher was worked beyond that, he would certainly fine the school. It was a wrong system, and he hoped the time was not far distant when it would be reduced. His ideal teacher was a duly qualified person, going to his work not earlier than twenty, properly trained and thoroughly equipped for his work ; teaching not more than fifty children in a room by himself, while the chief director of the school was going about from class-room to class-room, seeing that the teacher was doing his work and doing it well. Now he had given them some idea of the elementary school. He would be thankful to see schools graded. Then they must have a bifurcation system ; a school for science and languages for the middle-class ; and a school leading to the 'gymnasium' or the university. There must be openings for the clever, poor children from the elementary schools to the higher schools. All this, without doubt, involved enormous expense ; but the best system of education that could be devised—for instance one which would educate every class—would not cost anything like as much as our tobacco costs us. He wanted them to realise the fact that more was spent in tobacco every year than would educate the whole population. He did not say it was "shameful" ; a fellow-feeling made us wondrous kind ; but if on this personal luxury they could spend thus much, should they not spend it much more freely to raise the character of the whole

nation. One word as to free schools. The elementary schools could not alone be made free. Mr. Heller urged that without free education compulsion would not work. He (Mr. Mundella) had seen both sides of the question. Take the State of Saxony with its two-and-a-half or two-and-three-quarter millions of inhabitants. He considered that to be the model State of Europe as regarded education. If they wanted to see good education from top to bottom, let them go to Saxony, yet there was not a free school there. The law said in effect, to the parent, "You owe a debt to your child. If by any misfortune, such as deprivation by war, or by any calamity or sickness, you cannot discharge the duty, we will discharge it for you. You shall discharge it if you are able." Ladies and gentlemen were full of tender sympathy for parents; how philanthropic they were! But had the children no rights? In England, everybody had rights but the poor child. He was sorry it was so. We did not sufficiently recognise the duty which parents owed to their children and the rights of the child. He was not an opponent of free education, but he knew they could not get it; at present it was one of the things which were in Utopia. If any School Board in the country attempted to make all its schools free, it would be swept away at the next election, and the ratepayers would probably rise in arms against any Education Act which would propose to make all the schools of the country free. In Scotland the fees were higher than in England, and the poor parents paid them with a readiness which was astonishing. The sacrifices which the Scotch made on account of education always commanded his respect and sympathy, because they knew they were doing good service. It was to her educational system that Scotland owed her position in the United Kingdom; she had conquered the foremost place amongst us simply because she was an educated country.

With regard to the remarks of Mr. Chadwick, if they could get half time after a certain age, it was almost as good as full time, because a double education was going on. But at the same time, Mr. Chadwick had altogether

exaggerated what could be done at so early an age. He (Mr. Mundella) would be sorry to see it attempted to make children pass the fourth standard at eight years of age. He would rather fix the age of compulsion a little later than it was now. If it were not that we believed ourselves such a poverty-stricken nation that we could not afford it, he would ask to raise the age of compulsion to six, and let the child be at school till fourteen. At the same time he recognised the full value of the English infant school when it was in good hands, as the model infant school of the world. A number of distinguished visitors from all parts of the world had confessed after seeing the infant schools of the City of London, that they were a revelation to them as to what infant schools ought to be.

In conclusion, the Chairman said he had set before the meeting, as briefly as might be, a few suggestions in order that they might think about them, and consider whether with a stroke of the pen it was possible to adopt a perfect, systematic, harmonious, cut-and-dried system. It could not be done ; and, as English people, they would have to work out their own results in their own English fashion ; it might be a very odd, incongruous, and anomalous fashion, but the results had made us what we were and had had a good deal to do with the individuality, the force and vigour which had made us a great nation.

Mr. HELLER proposed a vote of thanks to the Chairman, and observed that he was a Conservative in the matter of education.

The CHAIRMAN responded, and said he would have liked to have heard more discussion of this question by their foreign visitors.

The section adjourned, and resumed its sitting in the afternoon under the Presidency of Dr. GLADSTONE.

Mr. CLARK said there seemed to be great unanimity of opinion that payment by results was the very worst system that could be adopted in public education. That, at all events, was the conclusion he had come to from listening to

the speeches that morning. Mr. Heller in his paper referred to the height of our standards as compared with those of other countries. But this comparison was altogether irrelevant to the question. Had they not a 100 per cent. clause in the code? In other words, were not all the children expected to make the same progress. In all probability many of the schools would be glad to see the standard of attainment raised if the department would allow it; but the 20 or 25 per cent. of forward children had to be kept back. Then, again, there were 20 or 25 per cent. of the children who were utterly unable to do the standards, and he held that the teachers ought not to be expected to pass the 20 or 25 per cent. The teachers were willing to be held responsible for hard work and honest work, but not for deficient brains, and that was what under the present system the department made them responsible for, in the 20 or 25 per cent. of the children who were unable to keep pace with the others. The objection of the teachers was not therefore to the height of the standards, but to clause 109 E 4, which expected all the children to make the same progress, a clause which rendered all the standards unworkable and upset the intelligent organisation of the whole school. If then they were able to pass with reasonable efforts—and more than reasonable efforts ought not to be expected of them--from 75 to 80 per cent. of the children, they ought to receive the maximum grant upon that result. Just to give an illustration of the manner in which this clause operated he would take two schools, school A and school B. School A had been full for years. The master examined every applicant, and only received those who could pass the examination. That man could secure the passing of 95 per cent. of his scholars without much effort. School B was not full, and new scholars were rushing into it every week in the year; possibly a large number came into it when the final twenty-two weeks had just begun. Fifty per cent. would be as good a comparative result in this school as 95 per cent. in the other; but the master of school A received 95 per cent. of the maximum grant, while the master of school B received only 50 per

cent. If, however, justice were done to these schoolmasters in proportion to their labours and anxiety, the proportion of the grant would be exactly reversed. Look at the effect of this on the classification of the school. The scholars were forced forward year by year, one standard at a time, and the result was that children entered one standard after another utterly unprepared, and passed out about as wise as they entered it. This was the state in which so many scholars came back to night school. Then, again, standards four, five, and six, were quite as hard at ten, eleven, or twelve years of age as were the Oxford and Cambridge local examinations at sixteen or eighteen. One result was achieved by these examinations. If a gentleman had some clever boys he sent them to the public grammar schools, but if he had only dunces they were sent to private or public elementary schools. Therefore the public schools got the picked boys. But when they were once inside these schools they were picked again. The sharpest lads being selected for the examination, and the result after the double picking was about 58 per cent. pass. The school boards, however, received dull, imbecile, half-starved, half-clad children into their schools, and were expected to pass 100 per cent. He thought that was outrageous. This system of forcing had destroyed the proper classification of the scholars; in fact, the proper classification of the scholars was an impossibility under the system of payment by results. He would give them a picture of a board school from the Educational Almanac. "In 1878, the Board began to publish comparative results of different schools, and since then a literal death struggle had taken place between the masters for the highest results, under which they had repeatedly broken down. The teachers complained of the increasing number of imbecile children from year to year. This must result from either of two things: first, the children were being forced beyond their capacity to understand the instruction given them, or, secondly, they were being permanently stultified by the over-pressure to which they had been subjected, and which destroyed the natural elasticity of the

mind." That he believed to be a faithful picture of the ordinary board school. Here was a picture of a German school. "At the annual examination, those children who show satisfactory proficiency in the work of their class are promoted to the next higher class, but those who do not are required to remain another year in the same class. The consequence of this is, that while the lower classes often consist of three sub-sections, the second class is really subdivided into not more than two, and the first class in most schools contains only one." In other words, the higher up the schools they went, the more beautifully classified the children were, so that when they came to the highest standard, or highest classes, the children had all such equal capacity that they could be all taught at once with intelligence and effect. This was what was wanted in this country and what he was afraid they would never have so long as a system of payment by results obtained. They were told by article 109, that certain results were expected of them. Sir Lyon Playfair, in answer to Mr. Stanley Leighton, stated in April last year, that by the new code the teachers had perfect power over the classification of their scholars. His (Mr. Clark's) own opinion was, that they had no more power over the classification of the scholars than the astronomer royal had over the motions of the heavenly bodies. If he had the power he would soon so transform his school that it would not know itself. The result of all this on the masters of public elementary schools was, that they rejected the dull children and retained the sharp ones, so that the schools which were not full became cesspools for the reception of the refuse from the other schools. He had himself known a case in which a mother with a very dull child was turned away from the door of four schools in succession, simply because the lad was a very dull one; and this was the sort of dishonesty which was encouraged by the present code. In speaking of the infant schools on the previous day, Mr. Bourne drew a very beautiful picture of the kind of instruction which might now be carried on in an infant school, and after he had given this very

beautiful picture, he asked the question, will the Code allow this? He (Mr. Clark) thought he ought to have said: "Will the inspector allow this?" As far as infant schools were concerned, the inspector was now able to say with perfect truth: "The code—that is me." One word as to the means by which a remedy might be found for this state of things. Mr. Mundella recently stated before a Committee of the House of Commons, the various stages through which this question had gone, and he stated that there was a time when the officials of the Education Department manufactured codes from year to year without consulting anybody. But the time came when Mr. Mundella thought fit to consult the masters of middle-class schools and Her Majesty's Inspectors. He also consulted the public elementary school teachers, but he did not take their advice.

In conclusion, he hoped that the third stage of the drama would be that Mr. Mundella would not only consult the teachers, but take their advice.

Mr. AUGUST ANDRESEN said he did not propose to say a word as to the code: as the code was there, they had better leave it alone for the present. He had been for twenty-five years looking after English boys, and had been acquainted with English schoolmasters for twenty-five years to a certain extent. During that time the advance which the English school had made was enormous. Born in Schleswig-Holstein, he had devoted himself from a very early age to the education of the young. He knew the system pursued in the schools of Schleswig-Holstein and Bremen, and to some extent in Switzerland, as he had been for four years the head-master of the Fellenberg Institute. He had ventured on the previous day to mention the name of one whose relation to Froebel was as that of Columbus to Amerigo Vespucci. Pestalozzi was the man who brought in the right system. When he (Mr. Andresen) was young, Berry Lancaster's was the system followed in Schleswig-Holstein in elementary schools under the enlightened Danish government, which was then foremost in educational matters. Then came Pestalozzi, Diesteweg, and others after him.

Personally he did not care about compulsion. If the teacher was the right man, the children would come to him and would not leave him alone. The school period was the spring time of life, and in it the bodily energy and illuminative power of the mind for the whole life should be acquired. The longer a child was a child, and the more it enjoyed to be a child, the better the man afterwards. Fellenberg was the contemporary of Pestalozzi, but younger. He took up Pestalozzi's plans, and for a time they worked together. Forty years he tried to work out the problem upon which all the world was now engaged, especially Europe and America, viz., what was to be done for the children of the different classes. Out of his system there had grown three schools, and three kinds of education, one for the poor, one for the middle class, and one for the higher class. At all these schools it was insisted that the whole time should not be given to brain work, but that time should also be given to hand work. He proposed to his canton that he should take the poor boys, and he had a hundred of them. He found one master, Wehrli, into whom he succeeded in putting some of his own enthusiasm, and these hundred boys cultivated the whole of the farm and gardens at Hofwyl at the same time that they were educated and taught. In Switzerland there were nearly seven months' winter ; but here in England there was no winter at all. Let them try twelve months in Switzerland and they would find out what winter was. Half time was there forced upon them by nature. In Schleswig-Holstein every boy must go to school until he was fully sixteen years of age, and every girl till she was fifteen. But when the child had attained a certain standard, the summer was made free for the purposes of work and of helping the parents in their occupation. To come back to Fellenberg. He had shops for carpentering, for shoemaking, for smith's work, and for agricultural implements, &c., and when it was bad weather the pupils could work indoors ; so that each learned a trade : and more than that, each boy had a parcel of ground given him which he was entitled to cultivate himself. The

produce of his allotment was bought from him, and the money placed to his credit in a savings bank, so that by the end of his time he had a good sum put by. Then he had to buy an outfit with the money thus saved, put a knapsack on his back and travel as a journeyman for three whole years. That, in short, was Fellenberg's plan, and he worked it out from 1808 till his death in 1846. During the whole time he never slept away from his own place for a single night. Out of the single farm that he bought grew a magnificent estate, but it was now an empty shell. Fellenberg had five sons and seven daughters, and when he died each one of them wanted to have something out of the estate; and though they each possessed something of the talents of the father, in none of them were all the talents united as they were in him. Mr. Andresen went on to relate how Fellenberg's work was undone by the civil war which broke out in 1847, and the political commotion which followed the French Revolution in 1848.

Mons. BULS, the Burgomaster of Brussels, then read the following paper:—

THE CONSTRUCTION OF PRIMARY SCHOOLS.

Programme adopted by the "Conseil Communal" of the City of Brussels, on the 21st of April, 1879.

By CH. BULS, Burgomaster.

WHEN in 1879 I was called upon to fulfil the duties of "échevin" of Public Instruction for the city of Brussels, I was struck by the want of method then prevailing in the communal administration with regard to the building of schools. The administration used to commission any architect to prepare designs for a school, at the same time placing at his disposition the necessary land, but without furnishing him with any instructions; the designs and

plans were then examined by the Public Works Section, and adopted by the Communal Council without any standard rule to serve as a criterion for judging of the merits of the proposed designs.

The result was that schools had been built which had cost large sums of money, but were very ill-fitted for the purposes of education.

In order to put a stop to this state of things, I drew up a programme for the construction of primary schools, availing myself of the experience acquired during the construction of the Model School, of an examination of the best schools abroad, and of the information supplied by special works on the subject. This programme was to be sufficiently comprehensive to be applied to the plots of ground of irregular shape obtainable in a large city, and, at the same time, precise enough to ensure that no essential condition should be neglected.

Since 1879 several schools have been erected in conformity with this programme. They are perfectly adapted to their destination, and, so far, experience has led us to believe that this programme does not require to be modified in any way.

I append this programme, which I will supplement by a few explanatory comments on certain provisions, the usefulness of which may not appear at first sight:

CITY OF BRUSSELS.

Construction of Schools.

Programme adopted by the Communal Council at the sitting of the 21st of April, 1879.

I.—Site.

1. Dry ground, or ground drained and made dry;
2. Sheltered from miasmatic exhalations;
3. As much ventilated as possible;
4. Protected against the noise of the street;

5. Of easy access;
6. The exit to be in a street where there is but little traffic.

II.—Aspect.

7. Windows to look East and West.

III.—Number of Pupils.

8. Maximum number, 700.

IV.—Minimum Number of Necessary Class-Rooms.

9. *Section A.*

1st Division (Higher)	1st section	35 pupils.
	2nd section	35 „
2nd Division (Intermediate)	1st section	40 „
	2nd section	40 „
	3rd section	40 „
3rd Division (Elementary)	1st section	40 „
	2nd section	40 „
	3rd section	40 „
	4th section	40 „
Section A.	Total	350 pupils.
Section B.	„	350 „
	Grand total	700 pupils.

distributed in 18 class-rooms.

10. 1 Room for the Teachers, the School Committee, and the Library;
1 Room for the Collections;
1 Director's room;
1 Covered Playground;
1 Gymnasium.
i.e. 5 supplementary rooms.

11. *Director's Residence.*

1 Dining-Room;
1 Parlour;
1 Kitchen;
3 Bedrooms;
2 Cellars;
1 Loft and attic for servant.

12. *Porter's Lodge.*

1 Porter's room;
1 Kitchen;
1 Larder;
2 Bedrooms.

13. *Various.*

Basement for heating apparatus;
Play ground;
Urinals and W. C.'s.

V.—Dimensions of Rooms.

A.—*Class-rooms.*

14. Maximum number: 40 pupils.
15. Area, 1½ square metre per each pupil; cubic space, 6·750 cubic metres per each pupil.
16. Rectangular rooms, corners rounded, the length to exceed the width by 2 metres.

B.—*Library.*

17. Minimum dimensions, same as for a class-room for 35 pupils.

C.—*School Museum.*

18. Minimum dimensions, same as for a class-room for 40 pupils.

D.—*Covered playground and playground.*

19. The covered playground and playground must have an aggregate area of 3 square metres per each pupil. These dimensions must in no case be inferior to 2 square metres for each pupil.

E.—*Gymnasium.*

20. For 80 pupils; 2 square metres for each pupil.

F.—*Corridors.*

21. Maximum width: 2 metres.

G.—*Staircases.*

22. Maximum width: 2 metres;
23. Straight steps, tread 30 centimetres, height 16 centimetres;

24. Maximum width between bannister rails, 15 centimetres;
25. Top rail of bannisters to be studded with spherical knobs;
26. A landing every 15 steps.

VI.—Construction.

27. The rooms on the ground floor to be built on arches;
28. Single door on same side as master's desk;
29. No communication between class-rooms;
30. Rooms to be lined with wainscoting formed of black boards;
31. Height of black boards to be proportionate to the children's stature;
32. Lower division's class-rooms to be on the ground floor.

VII.—Light.

33. Windows to be on the longer side of room;
34. The light to fall on the left side of pupils;
35. Window-sills to be at 1m.55 from the ground;
36. The window-frames to be slanting inwards;
37. Minimum glazed surface, 0·165 square metre per 1 square metre of ground area, supposing the class-room to be lighted only from the left.

VIII.—Heating and Ventilation.

38. Windows to open wide, but in such a way as to prevent the draught coming direct on the heads of the children;
39. The heating to be combined with powerful ventilation; 20 cubic metres of air per hour;
40. Average temperature 14° to 16° C. (57°·2 to 60°·8 F.);
41. In class-rooms used for adults, the gas-burners to be at a distance of 1m.40 from the table;
42. Smoke-consuming pipes above the burners for the outlet of the vapours of combustion.

IX.—Director's Room.

43. Of easy access to visitors;
44. In direct communication with school in order to make supervision easier.

X.—Covered Playground.

45. Provided with powerful ventilation.

XI.—Playground.

46. The ground to be covered with some substance pervious to water.

XII.—Urinals and Water-Closets.

47. One seat for every 15 girls, or for every 25 boys;
48. An urinal for every 15 boys;
49. The closets to be divided by partitions;
50. Seats proportionate to the children's stature;
51. Doors so arranged as to show head and feet;
52. System of closets with ventilation and water supply;
53. Urinals to be divided by partitions;
54. Urinals and water-closets to be situated in the yard.

XIII.—Stairs.

55. Not to be directly opposite a door.

XIV.—Destination of the Programme.

This Programme is destined:

1. To guide the "Echevin" of Public Works, and the Sections in their choice of sites for schools;
2. To guide the Architect in drawing up his plans;
3. To serve as a criterion for the Sections when having to pronounce on the plans submitted to them;
4. All proposed designs for the erection of schools shall be accompanied by a report by the Architect in which shall be stated the Articles of this programme which he has not observed, and his motives for so doing.

Explanatory Comments.

6. *The Exit to be in a street where there is but little traffic*, in order to avoid accidents which might result from the passing to and fro of a large number of vehicles.

7. *Windows to look East and West*, in order that the sun may shine on the class-rooms during part of the day, without, however, their being exposed to the great heat of the south.

8. *Maximum number of pupils:* 700. This number is proportionate to the division of Primary Education as set forth in § 9. It does not exceed the number of pupils that one teacher can efficiently manage and superintend. We have in Brussels old-established schools attended by 1200 pupils. Experience has

proved that number to be too large. It is important that the schools should be within easy distance of children's homes, in order not to compel the younger children to walk a long distance, which takes them far from their parents' home, and leads to loitering in the streets.

9. *Minimum number of necessary class-rooms :*—Compulsory education being unfortunately not yet established in Belgium, many pupils leave school before they have completed their studies, consequently the result is that much more room is required for the lower, than for the higher, divisions. This is why the elementary division comprises 4 sections of 40 pupils, the intermediate division 3 sections of 40 pupils, and the higher division 2 sections only of 35 pupils.

19. *The Dimensions of the Covered Playground and Yard* have been determined after experiments. On a ground the measurement of which had been previously ascertained, I caused to be brought an increasing number of boys at play, and I thus determined the minimum area to be given to the playground. Notwithstanding my opposition, the Communal Council in the fear of incurring too large an expense in the construction of schools has introduced the following restrictive clause : " These dimensions must in no case be inferior to 2 square metres per each pupil." In my opinion 3 square metres is already a minimum dimension, and 4 square metres per each pupil ought always to be given. Unfortunately, land is so costly at Brussels, that it is impossible to give rational dimensions to the playgrounds.

20. *Gymnasium.—For* 80 *pupils ; 2 square metres for each pupil.* These dimensions have been calculated in such a way as to make it possible to give at least 3 hours' gymnastics per week to each pupil.

26. *A landing every fifteen steps* in order to avoid falls from a great height.

(Signed) BULS.

DISCUSSION.

Mons. BUISSON, in response to the wish expressed by Mr. Mundella, gave a few explanations on the course adopted in France for the last few years with regard to primary education. The course followed in that country might be

described as being precisely the reverse of that which had been recommended that morning by Mr. Mundella. On every essential point of the organisation of schools, Mr. Mundella had confined himself to ask his English audience: Are you prepared to pronounce in favour of gratuitous education? Are you prepared to impose on the State a new burden of some four or five millions sterling, in order to double the number of schools, suppress pupil-teachers, extend the period of school attendance, &c., &c.? The same questions had been asked in France, and the reply had been, Aye, we are prepared to do all this. The difference in the mind of the two peoples was discernible in this as in everything else. In France they began by establishing a principle in its integrity, in its widest sense, they next registered it in the statute book, and then they endeavoured to apply it and to realize it by degrees. Mr. Mundella had said that in England, on the contrary, the opposite view had been found to answer; reform upon reform, progress upon progress, successive increase, and slow development, such was the history of public education in England.

Practically, the two nations were at one with regard to the object in view, viz., compulsory, gratuitous, and secular education. Only they differed on the means to be employed to reach their aim and to assert their intention of reaching it. The English were tending to that aim without loudly asserting it, whilst the French were desirous of proclaiming what their object was, a long time before they succeeded in accomplishing it. On both sides progress was made, but in neither case was it instantaneous. The two nations had no interest in copying one another; let each nation follow its own course, and it would be seen who first reached the goal.

Mons. Buisson then gave a few details on the condition of primary education in France, and on the reforms of which the increase in the budget may give some idea; 100 millions of francs instead of 20 millions for the ordinary budget, and 300 millions for building schools had been spent in six years. He explained the reasons why the

relations between Church and State in France could not be compared with the relations existing between the State, the parishes, and the religious bodies in England. In France, the preliminary condition of all progress was the secularisation of education. Such had been the aim of the laws of the 16th of June, 1881, and of the 28th of March, 1882, which was the connecting link with the tradition destroyed by the reaction of 1850, and would enable France to resume the march onward which was begun by the Revolution of 1789.

Mr. FREDERICK WHITE observed that a great many speeches had been made by managers, inspectors, directors, and foreign gentlemen, but very little had been said in reference to the matter by those who were working in the rank and file of elementary education. He thought they ought to be heard. He was very pleased to hear the difference between what was done here and what was done in Berne. Here the teachers were paid by results, and there for their work. Mr. Mundella stated in the morning that the education in Switzerland was the best in Europe, and that the children learned to speak two languages besides their own. If this could be effected there without having resort to the pernicious system of payment by results, why could it not also be managed in this country? Was it because there was a deep-rooted suspicion directed against the elementary teachers of this country? He asked the question intending to say that actions spoke louder than words, and that the whole system of payment by results was founded upon actual mistrust. They were met here to discuss the question of education in connection with the Health Exhibition, and he contended that this system of payment by results was very deleterious to the health of the children. This was a question of benefit or otherwise to the children, and not to the teacher or parent. If the educational system of the present day was such as to affect to a great extent the health of the children, it was surely an important question for consideration. In order to obtain a good grant, the teachers often became perfect tyrants to those who were back-

ward and were incapable of learning so fast as others. One of two things must happen. Either the school must lose the grant, or the children must be pushed forward, without regard to the effect upon their health. They were told that in the new code allowance was made for this, but what did the inspectors tell teachers if there were 4 or 5 per cent. of incapables? That they were exceeding the limit that was allowed. What could the inspectors know of the physical capacities of children who had not been under their care?

Talking of over-pressure, Mr. Buxton said that morning, that there ought to be some arrangement under which teachers should be examined before they went into the training colleges or sat for their certificates, in order that it might be ascertained whether they were physically fit for the task. In future, he (Mr. White) thought they would also be compelled to have the children examined by a medical gentleman to see if they were fit to undergo the course of instruction. They were told that the teachers were not bound to do the whole work of the code, but could make a choice of subjects, and only work up to a certain pitch. But what would be the effect of that. It would be that the school would not be favourably assessed, and the teacher would suffer in reputation owing to his not having done as much work as the others. The more backward and idiotic the children, the harder the teachers would have to work, but with smaller compensation. Under these regulations everything was put upon the teachers. Mr. Buxton himself said, that the attendance question was not so much a question for attendance committees or for school boards; it was a question for teachers, who should themselves look after the attendance. He (Mr. White) quite agreed with Mr. Buxton in that, for to a certain extent the teachers could, no doubt, improve the attendance; but if this was a question for teachers, why have all the expense and trouble of school attendance officers, and school attendance committees. But everything is required from the teachers now-a-days. He lately read an account of an exhibition of flowers which were grown in windows, which finished off by saying that

the school board teachers should have their attention called to the fact that it would be well to teach the children something about the nature of flowers, so that they might be induced to compete in exhibitions of this kind. If a boy was run over in the street, it was pointed out that the school board teachers should warn their pupils that if they were not careful in crossing they incurred the danger of being run over. In cases of throwing stones at trains, he had seen it remarked, how surprising it was in these days of school board education that the children had not been taught how wrong it was to throw stones at trains. If anything went wrong the school board teachers were warned that they must put their children right in the matter. If boys were drowned in bathing, the blame was often thrown upon the school board teachers. There was only one case yesterday in which consideration was shown for school board teachers. In the discussion upon the scientific teaching in schools, there was one gentleman who was considerate enough to say that as the teachers could not do everything let them be relieved of spelling. The children were suffering from over-pressure, and there was need that the burden should be lightened.

Miss EMILY LORD said she had heard a great deal about board schools and elementary teaching, but no reference was made to the children who were socially above the board school. The children in the latter were being educated to be the artisans and workpeople of the future, and the children in the higher grades were, she supposed, to be the future schoolmasters and schoolmistresses and professional people in general. She wished to know how they were being educated: she thought that in a great many cases they were being educated very badly. Many private schools were doing good work, and all honour to them for it. A great deal was being done by private enterprise. She was not up in statistics, but as there were many millions of poor children who were receiving education in the public elementary schools, she supposed that the children who were receiving a very indifferent elementary education in private schools might also be counted in millions. The

indifferent elementary education afforded to the higher classes accounted, she believed, for the innumerable failures in the public examinations; the candidates broke down in dictation. That seemed to be very serious, and she thought it would be a very good thing if a little more attention could be paid to the elementary teaching of the upper classes. In private schools but little attention was paid to the progress of the children. The mothers came to see them as pretty sights. The fathers never came. She spoke as a private schoolmistress who had had the teaching of the children of a school inspector. She never saw the father except once when she dined at his house, when he expressed himself highly delighted with the progress the children were making, but she would have thought it a much better compliment if he had inspected the school and found fault. She thought that the private schools ought to be proud and pleased to be criticised. It was a great injustice to suppose that the proprietors of private schools would not be glad to have them inspected. Perhaps she would be thought to be contradicting herself when she told them that the Frœbel society put forward a paper four or five years ago saying that it would inspect all the Kindergarten schools in England. It was sent to all the Kindergarten schools that could be found, and she believed she was not mistaken in saying that only three presented their schools for examination. Were they afraid of being inspected? Very likely so; but, perhaps also it would not pay them. If they were afraid of inspection, would the parents find that out? Although the Conference had lasted already three days, not a word had been said about elementary teaching in private schools; and she wondered whether all the people attending the Conference were in some way or another connected with board schools. She hoped that when they got home they would think a little about this, and make up their minds to go and see the private work that was being done. She wanted very much that the eyes of the proprietors of private schools should be opened. She was a manageress of the board schools in her own district,

and she must say that she really was jealous when she went into them, and when she thought of her own children cramped up in the little rooms of a private house. Yet if she went to a builder to negotiate for a piece of land, he would not hear of its being disposed of for the purposes of a school. There was no land to be got to build schools on except for the children of the poor. But she consoled herself with the reflection that the children who came to her had parents who took them to the Health Exhibition, and to the seaside. She had been asked to get up a class this week to teach upstairs in room 12, but out of 165 children she could only get five of the right age who would be in London this week : they were in the country enjoying themselves. But why should not these children have the best that could be got for them. She had prepared a large place, though truly it was but a brick coach-house, at which the school board would turn up its nose, but which fulfilled the necessary conditions of a school-room as to size. She hoped that the outcome of these meetings would be that in the future more interest would be exhibited with respect to the children who were being educated in the private schools, and who would have in the future to compete very closely for their living with those who were being educated in the board schools.

Mr. KENNEDY (Clerk to the School Board of Glasgow) said that Scotch people had in a very summary way solved the difficulty alluded to by the last speaker with respect to the children of those who would prefer something more than the ordinary board school. The Scotch Education Act was different from that of England, inasmuch as the preamble declared that the school board should provide means of education for the whole of the people of Scotland. The middle classes in Glasgow and other large towns, soon began to find out that their pockets would be applied to to provide schools for those in their employment of a higher character in every respect than the so-called select schools—conducted in private houses. As a consequence, the private schools collapsed with a rapidity which left the school board

in rather difficult circumstances, and schools were now provided where nearly all the children belonged to the respectable middle classes. They were better off than the English in respect to the 9*d.* a week difficulty, for the 9*d.* a week did not figure in their Act at all. It was only in the Code, and this year Mr. Mundella had made a most opportune concession. As to over-pressure, though he had heard a great deal, he knew comparatively little. The presence or absence of over-pressure depended very much on the school boards or school managers. The school board of Glasgow were in the first place very particular as to the selection not only of the headmasters, but of all the staff. This was a work not delegated to managers or anything of that kind. He had frequent visits from ladies and gentlemen connected with English school boards, and they always asked a question as to the number of school managers. As a matter of fact there were none. The Scotch board appeared to think that they would have harder work to manage the school managers than the schoolmasters, and that the schoolmaster who wanted a school manager to manage him was hardly worth having. The consequence was that the boards believed in the schoolmaster, and, as a rule, he did not trouble the school board, and the school board did not trouble him, from the beginning of the year to the end. He was subject to no examination except the examination of Her Majesty's inspector. They never could understand in Scotland why, when a headmaster was appointed, it was necessary to appoint a man with an inferior salary to go round and inspect him. He would advise them to reduce their machinery to a minimum, and to take care above all that they had masters and mistresses of the right quality, and in proper quantity. Therein lies the true secret of success. A statement was made in respect to the Scotch schoolmasters and the code that they were very much opposed to the Code of 1861, and still more so to the present one. He did not speak with authority, but he did not think that was quite correct. The Scotch schoolmasters were very

strongly opposed to the first code, but they considered, one and all, that the present form was a considerable alteration for the better. Was it not possible that as the system had grown up, so the right form of code would in time grow too? With all respect to the teachers' associations, he had never yet seen any well conceived and well digested scheme which a responsible body would accept in place of the existing code. He did not think that any sweeping change could be introduced at once. One point referred to by Mr. Heller had reference to the enlargement of the area of school boards. There were school boards all over Scotland. Some had to deal with a population of only 300. That with which he had the honour to be connected dealt with 550,000. Schoolboards in Scotland were as a rule successful in direct proportion to their size. He was sorry to say that there was a vast amount of sectarian feeling n the country districts, and the tenure of office of the teachers depended in not a few instances upon the constitution of the board from year to year. In this respect there was no doubt room for reform. Enlargement of the area would be an enormous boon in a variety of ways.

Mr. GEORGE COLLINS observed that Mr. Mundella had admitted that in one thing the present educational system was exceedingly defective. He also asserted that very great progress had been made, which they were all willing to admit. They had, however, to consider what was the best theoretical code, leaving it to the responsible ministers to do their best to attain it. The one thing which ought to underlie all their efforts, whether as teachers, managers, or members of the educational department, was the good of the children. He was fully prepared to admit that if it could be shown that the interests of the child were opposed to the interests of the teacher, the latter must give way. He did not think for one moment that this could be shown, for he believed that the true interests of the teacher were bound up inseparably with the interests of the child; but if that were not so it was the teacher who should give way. But the same principle should apply to the action of school

managers and of the officials of the Education Department. In the town in which he lived the interests of the children were not attended to properly, because the vested interests of certain persons, whom he would not particularise, stood in the way. He did not think that the vested interests of any body of managers ought to stand in the way of their doing the best they could for the children. He did not think it would be a good thing to sweep away voluntary schools, if the managers of the latter were willing to make them as efficient as board schools would be in the same place. If it could be shown that by substituting board schools for voluntary schools the children would be benefited it was the duty of the voluntary schools to give way. He had every confidence in the gentlemen who at present administered the education department to construct a code founded on true educational principles, if they could be induced to undertake the task.

Sir THOMAS ACLAND, Bart., M.P., said he regretted very much that he was not aware of what was going on that morning, and that he had been so engaged that he was unable to be present. He might say that he had missed a good deal. He wished to speak from the point of view of a plain country gentleman, a Protestant, and a member of the Church of England, though he knew he was in the presence of some who differed from both those points of view. He also spoke from the point of view of one who had been engaged in the cause of education during the past forty years, having been one of those who under the guidance of a really great man whose name was now forgotten, namely, Mr. Gilbert Matthison, had assisted in founding the whole system of Diocesan Boards all over England, and Saint Mark's and Whitelands Colleges. Therefore his interest in schools, and schoolmasters and mistresses was not a political matter, nor was it a matter of yesterday. As a child he was taught spelling by his mother on Dr. Bell's system. He entirely endorsed the sentiments of the gentleman who said that the good of the children was the first thing to be considered. Under the present system

he considered that the good of the children was sacrificed, partly to the interests and convenience of the masters, and partly in the interests of those who had to pay for the support of the school locally. As a country squire he knew that in many places the country squires had not done their duty in the matter of education, while the clergy had made great efforts and sacrifices ; but he himself was the son of one who did, and he endeavoured to work with the local farmers, providing the buildings in the first instance and subsequently dividing the annual expenses of management. The result was that the farmers, from being hinderers of education, had been converted into promoters of education, and now they did all they could to keep the children at school, in order that they might the sooner go out to work. So far so good. For many years he had watched the local taxation question in Parliament, and what was the cry in connection with that question ? There was a constant demand to get more and more out of the consolidated fund, sometimes in aid of the ratepayers, and sometimes in aid of the owners of the soil. It was not right that the owners of lands and houses, who possessed only one-eighth of the whole income of the country (which amounted to eight hundred millions), should pay for all the education of the country. They were now bound to make great and special sacrifices for the education of their labourers, and when the ratepayers of all England were taken into account, it was not to be expected that those whose hard earned money was derived from trade, and farmers also, who were very much pressed upon where school boards had been established, should pay so large a proportion of the expenses of elementary education, while people with incomes of thousands upon thousands a year, living in palaces in Belgrave Square or in other parts of London, contributed next to nothing. Farmers knew a great deal more than they were given credit for, but they did not always know the reasons for what they did, and there were others like them. When he (Sir Thomas) caused some cookery lectures to be given in the district in which he lived

his father's old cook said to him afterwards, "I have enjoyed this very much. I have not learned any cooking that I could not do before, but now for the first time in my life I know the reasons for what I have been doing." It was exactly the same with the farmers, and, he might add, with landowners also.

The CHAIRMAN (Dr. Gladstone) said he had no doubt that they would all be glad that Sir Thomas Acland had wound up the discussion in so vigorous a manner. A great many valuable remarks had been made before the section, not only by delegates from different parts of their own country, but from abroad, and he thought they would go away bearing in mind the beautiful exposition which M. Buisson gave of the difference between the English and the French character in regard to the received ideas of education. They proceeded from theoretical grounds to establish that which was a very perfect system, and which by slow degrees they were gradually getting into practice. The English, on the other hand, tentatively tried to improve their system into something which was more and more theoretically perfect, and in this respect we had a great deal to learn. There was no doubt that that was the essential difference in the education of the two countries, and he did not know that they could at once say which was actually the best. But in our own country, as Mr. Mundella had said, we should always be making progress and advancing, and never be contented with that which we had. They were very pleased also to have had such valuable experiences as had been given by M. Buls of Brussels in regard to buildings, and especially such as had been given them by the two delegates from Switzerland. Both those gentlemen were well acquainted with the system which was carried out in that country, a country to which one looked as having solved a great number of difficult educational questions, and advanced to the proposal of all the countries of Europe. Questions had been mooted with regard to payment by results, medical inspection and other things which were very inviting to touch upon if time did not fail.

Under the present circumstances he feared that they were unable to give up the system of payment by results. It would not be supposed by the teachers that it was a sign of doubt of their ability or conscientiousness. The English people required that education given should be properly tested. With regard to the medical question, there was no doubt that medical questions must be a little more looked into, but he would very much deprecate putting the schools too much into the hands of the doctors. With regard to over-pressure, he did not think that they could properly blame the department for that. A code could only be framed for the generality of scholars, and he did not think the requirements of the standard were a bit too much for the generality of the scholars taught by average teachers. A great deal more could be accomplished for the children if the classes were smaller and only the very best teachers were employed. The code was of course intended for the whole country, and for ordinary scholars and ordinary teachers. There were some children, no doubt, who from physical or mental causes were unable to do the ordinary work. The code now required that managers should pay attention to that matter, and should withdraw children who were unfit for examination. He did not see that the code could go further than that, at any rate at present. Nor did he think that the Boards were to blame in the matter, because as far as he was acquainted with their action, they looked into every instance of over-pressure, and tried to arrange their plans so as to meet the difficulties of the case as well as possible. But let it always be borne in mind that legislature or the department of education could only deal with masses, and that it must be left to the good sense and right feeling of managers and of teachers to meet exceptional instances. He was very glad indeed that Miss Lord had brought forward with so much feeling the matter of the primary education of the upper and middle classes. It was a subject that ought to engross their attention far more than it did. Having the pleasure of the personal acquaintance of Miss Lord, that lady being manageress of the Board schools under his own

special care, he knew that Miss Lord tried to do her duty to the poor children as well as to those who came to her own school. All must feel that there ought to be in their kindergarten or their schools for the rich, or for the middle classes, at least as good methods of education and as good buildings and as good teaching generally as was now afforded to the children of the poor. In many cases no doubt it was so, but they wanted it to be so everywhere. Very little had been said in the course of the discussion in this section as to the balancing of subjects. Depend upon it they must look into their methods, and into that which it was most necessary to teach in order to train the minds of the children of the artizan class. At present they had been principally occupied in getting up schools, getting together the necessary organisation and so on. The matter was one which deserved the most complete consideration at their hands. It was said that in France the primary elements of education were taught more quickly than in this country. England was at a disadvantage in respect to the teaching of the three R's as compared with the other countries of Europe. As regarded speaking, the English language was more difficult than any other as far as he knew, with the exception of Gaelic. French was almost as difficult as the English. The irregularity of the English spelling caused immense loss of time in the education of every English boy or girl. In such a country as Sweden, where the spelling was almost phonetic, a great saving in that way was effected. With regard to arithmetic there were compound as well as simple rules. In many countries in Europe only simple rules of arithmetic had to be considered. As so much attention had to be given to the three R's there was the greater reason to consider how far the English education should be literary, how far it should be artistic, and how far the powers of the hand ought to be developed. It would tax all their energies to raise up an industrious, honest, moral, religious nation, and he thought they might felicitate themselves upon the discussion which had that day taken place. Dr. Gladstone concluded by

moving a vote of thanks to Mr. Heller for his paper, and also to Mr. Roe and to M. Buls for their communications.

Mr. HELLER, in acknowledging the compliment, observed that the Papers had served the purpose of eliciting an interesting and, he hoped, useful discussion. Mr. Buxton, who spoke at the outset of the discussion, did not agree with what he assumed to be asserted in his paper, namely, that compulsion had done nothing for education. If that was the impression gathered from his paper, he wished to say at once that it was not the impression which it was intended to convey. But he did say that the results as set out in the annual reports showing the actual state of school attendance, showed that compulsion had been comparatively a failure. He himself ventured to believe that a far greater number of children had been brought into schools by having had good buildings placed within reach, and by the careful teaching and the improved methods and appliances of those schools, than by the action of the compulsory clauses of the Act. He did not at all assent to the dictum of Mr. Mundella that the effects of compulsion had been satisfactory. Though the area of education was larger than it was before, he believed that very much of the increase would have been secured without actual compulsion. But the credit must be given to compulsion of having been most useful where it had been properly applied, and his strictures applied only to those parts of the country where compulsion was not applied, either through the indifference of the authorities or the difficulties imposed by the magistrates. What they called upon the Government now to do was to make the law effective, having due consideration for the special difficulties and the special needs of the poor and of the working classes. It could not be satisfactory that under a compulsory system of education even so many as twenty-five per cent. of those who might be at school should be habitually absent from school. Mr. Buxton stated that the teachers were really answerable for attendances: that was to a certain degree perfectly true. He believed that the popularity of a school would depend very

much upon the style of teaching and the discipline adopted. But these would not effect everything. The children must be brought under the care of the teachers before their influence could be exercised. As to Mr. Buxton's remark that the teachers must back up the authorities, he would add that the authorities must back up the teachers. As to Mr. Mundella's criticisms, they were in a great measure criticisms of views that did not appear in his (Mr. Heller's) paper. He remarked, as to the standard of education, that this country was in a good position so far as elementary education was concerned; and he also ventured to say that if the same tests of examination were applied under the same conditions to the schools of France or of Belgium, or even of Saxony, it would be seen from the results that the position of this country was not unsatisfactory. Without such tests there could be no satisfactory comparison made as between one country and another. The schools of Belgium and of Switzerland he believed to be much more intelligent in certain parts of their teaching, because they were not bound by the wretched conditions which the Government grant imposed. The teachers being freer were inspired by enthusiasm such as he knew was also possessed by the English teachers, but the latter were working under trammels, which killed enthusiasm and destroyed zeal. In respect to this matter he knew that they would not rest until the trammels were removed. Until then they would not reach the high ideal which had been referred to. It was no doubt an omission in his paper not to deal with elementary education as it affected the upper classes. He wished that in this respect they could follow their Scotch friends and deal with the subject of Elementary Education as affecting all classes. He wondered that the upper and middle classes did not themselves see that it was necessary to bring Elementary Education as it affected them into something like a systematic condition, with some guarantee that the teachers who taught in these schools were competent to perform their duties. Miss Lord's remarks were well timed, and had singular relevancy to the subject of this discussion, giving

it a completeness in which it would otherwise have been lacking. Mr. Heller concluded by moving a vote of thanks to Dr. Gladstone for presiding.

Sir THOMAS ACLAND seconded the motion, and observed that while they differed from Dr. Gladstone on many subjects, all would agree that the gentleman was not only eminent in science but well known for his devotion to the public good, and when he spoke of the importance of religion in connection with education he spoke in accordance with what was his own consistent practice.

Dr. GLADSTONE, in reply, said he had been asked by a lady to say that the church schools were doing much to improve the education of the upper and middle classes.

INSPECTION AND EXAMINATION OF SCHOOLS.

THURSDAY, AUGUST 7, 10 A.M.

Chairman: Sir THOMAS BRASSEY, K.C.B., M.P.

Mr. WALTER SEVERN (of the Education Department) said: I think it is always a great pleasure to hear a speech made or a paper read by any one who is thoroughly imbued with his subject. We heard yesterday a most interesting and earnest speech, I may call it a brilliant speech, from Mr. Mundella, who really seemed to speak more as an earnest advocate of education than as a Vice-President of the Council; but to-day you will have a paper on Inspection by an Inspector; and I think I may say in anticipation that Mr. Fitch speaks, not only with a life-long experience, and with heart and soul in his work, but also with authority, as an official of long and varied experience, and a valued servant of the Crown.

INTRODUCTORY ADDRESS ON THE INSPECTION AND EXAMINATION OF SCHOOLS.

By J. G. FITCH,

Vice-Chairman of the Section.

THERE is a very general impression abroad that examinations form a larger factor in our modern educational machinery than in former times. But I am not sure that

this impression is true. Examinations are more talked about and discussed than ever before. But it is not certain that they are more practised. There are public authorities concerned with the management of them. There are public arrangements for carrying them out. This is the one department of a school's work that has for many persons the chief interest, and in regard to which the results are published in newspapers. And because the machinery of examinations and the results of them have become thus prominent, it is easy to leap to the conclusion that schools are always being examined, that they exist for the purpose of being examined, and that the scholars are always working with a view to an examination.

If, however, we look closely into the interior life of a well-ordered school, we find that very little of this public controversy and excitement penetrates or needs penetrate into the school itself. We can only measure the real value of the popular impression about examinations by asking ourselves how far they actually affect the work, the motive, and the life of any given scholar. Now, every teacher knows that examinations are legitimate and necessary elements in his educational plans. They serve two purposes, first, as an instrument of instruction, and, secondly, as a test of the soundness and thoroughness with which a subject is known. From Socrates downwards, it has always been understood by good teachers, that for the awakening of faculty, for stimulating thought, for assuring the teacher that his instructions are being followed, there is a constant necessity for challenge and appeal on his part, and for the reproduction, in his own words, of what he knows, on the part of the learner. It is not by receiving truth into the memory that we are enriched or strengthened, but by assimilating it and reflecting on it, letting it pass though our minds in one form, and reappear in another. Until we have been led to give out again what we have acquired, to express it in words of our own, we do not know even for ourselves whether we have appropriated it or not. Teaching and examining are not, therefore,

separate or rival acts. Examining is a part of teaching, and is indispensable to it. Unless teaching is constantly associated and followed up by questions, designed to find out the weak places in the scholar's memory, or the flaws in his reasoning, we can have no adequate assurance that the teaching is efficient.

For this reason frequent exercises in recapitulation, both oral and written, of work which has been done, and of thoughts which have before passed through the mind, are indispensable, if we would secure for what has been done and thought a permanent place in the mental resources of the scholar. But this kind of examination is in the teacher's own hands. He alone knows when to apply it, what to expect, and how to adapt it to the mental state and requirements of the pupil. No external interference or authority is needed here. For so much of examination as is daily, weekly, or monthly, and is designed to see how much of what is learned can be correctly reproduced, and whether it is safe to take another step forward, no one can be rightly responsible except the teacher, who has the strongest interest in keeping touch with his pupil, and knowing day by day what is going on in his mind.

It is not, one may presume, of examination such as this that complaint is made when it is said that examinations are the bane of modern education ; that they supply to a student wrong and ignoble motives for exertion, and that they keep his mind in a perpetual state of unrest and excitement. There can be no intellectual activity at all unless there is some stimulating influence to produce it. Such influences may be of very different kinds, but among them, one of the most legitimate is the sense on the part of the learner that what he is now receiving he is expected to retain, and will be required to produce again in some form or other. Working under this conviction cannot be called working with a view to examination. If, indeed, the scholar is made to think of the reward or honour which may attach to his passing an examination, or of the means whereby he may contrive to get the maximum of credit

with the minimum of effort, the influence of the examination, whether conducted by his own teacher or by a stranger is assuredly harmful. But in so far as the consciousness that he will be tested hereafter makes him attend more closely, think a question out more fully, and try to remember more exactly; that consciousness is a clear gain, and a substantial help towards the attainment of the highest ends we contemplate in education.

It may then be said that examinations, so long as they are conducted by a scholar's own teachers, are free from objection. Why not therefore leave in the hands of those teachers the application of the tests, and the final award upon them? Why are we not content to let University professors grant degrees to their own students, and schoolmasters go on in peace doing their own work, making a careful estimate from time to time of the results, undisturbed by the intrusion of external inspectors or boards of examiners? Surely no one can know the state of a learner's mind better than the teacher who is in contact with it day by day. And no one is so good a judge of the moral considerations necessary to a final estimate of the result, and of his claim to a reward—his diligence, his perseverance, the difficulties he has overcome, the extent to which he has made the best of his own power and opportunities. All experience, however, shows that this is not enough. The teacher knows well enough how nearly *his* ideal has been reached. But he does not know and cannot know, whether that ideal is the highest attainable and how it compares with that which is attained by other teachers, and under other conditions. There is an inevitable narrowness of vision produced by daily observation of the same little group of minds. Details are seen in more or less false perspective. The progress of to-day is compared with that of yesterday, and the larger view of the progress that ought to be made and which might be made from year to year, becomes more and more difficult in proportion to the very zeal and earnestness with which the teacher watches the every-day work of his scholars.

He cannot put himself into the position of complete detachment. He wants to see his work as others see it. He wants an honest comparison to be made of his own performances with those of others, and to be assured that what he is doing does not fall short of the standard which is generally reached by good teachers in similar conditions. And even if the teacher did not himself feel this distrust the public would feel it for him. Lord Sherbrooke puts the case with an irreverent but characteristic plainness, when he says he does not like to leave traders to "brand their own herrings."

Hence, then, has arisen on the part of the public a demand, justified, it must be owned, by the facts of human experience, that university degrees shall be awarded by some other authority than that of professors and tutors only, and that the work done in schools shall be occasionally tested by external examiners. Thus in all the schemes framed by the Commissioners under the Endowed Schools Act, for the re-organisation and management of secondary schools, there occurs this provision :—

"There shall be once in each year an inspection or examination of the scholars by an examiner or examiners, appointed by the governors and paid by them, but otherwise unconnected with the school. The examiners shall make a report in writing to the governors on the proficiency of the scholars, and on the position of the school as regards instruction and discipline, as shown by the results of examination. The governors shall communicate to the head master or mistress the report relating to the school."

You will see that this legal requirement specifies inspection *or* examination, but it does not necessarily extend to both. The requirement may be satisfied by an examiner, who brings a number of printed questions in his pocket, gives them out, and takes due security for isolation and honesty in working them, and then carries them home, assigns marks, and sends in a nominal list showing the exact standing of each scholar. This, of course, is not inspection. For such an examiner knows nothing of the

way in which the scholar has been taught, nor of the spirit in which his studies have been conducted. He has tested the memory and, in some degree, the judgment and taste of the individual scholar, but of the school he knows little.

It is much easier to examine the scholars of a school than to inspect the school itself. Anyone with a full knowledge of the subject taught, and with a very little practice in setting questions and in assessing the relative merits of answers, can tell what the boys of a class have learned, and can arrange their names in the order of merit. But to estimate the work of a school accurately as a whole is a much more difficult task. It requires a judicial cast of mind, perfect fairness, freedom from predilection and crotchets, a mind ready to recognise all forms of good work, and a large measure of personal tact, insight and sympathy.

And because these qualifications are somewhat rare, it comes to pass that the governors of most schools content themselves with the examination of their schools by some competent authority, and hesitate to incur the risks of a possibly unskilful and unsatisfactory inspection. Yet both are necessary for the full and equitable assessment of a school's work. Unless the age of the scholars, the circumstances of a school, the character of its organisation are taken into account, unless the examiner knows the nature of the staff, the special aims and plans of the head-master, an examination cannot be otherwise than a rough and rather unsatisfactory approximation to a true test. And there ought to be within the reach of all governors of schools the opportunity for obtaining inspection as well as examination, in order that they may know not merely how the performances of their own scholars compare with those of others of similar age, but also how their school—considered as an organised whole, as a place for intellectual discipline, and for the formation of character—compares with other schools.

We are here to consider the different ways in which such a demand is to be met. Grant that some external authority

should be called in to guage the quality and results of the instruction, what should be the nature of that authority, and by what principles of action should it be guided? These questions will arise in the course of the papers and discussions to follow. It will suffice, here, to indicate generally the two or three different directions in which it is possible to look for a solution of the problem.

One thinks naturally in the first instance of the State. It actually has under its supervision more than four millions of scholars, and nearly 19,000 schools in 28,000 separate departments. It employs a number of officers called inspectors, whose sole business it is to visit the schools, to examine and observe them, and to report upon their work. But the primary purpose of this arrangement is not to impose upon the schools of the country any theory or ideal of instruction desired by the State, nor even to improve the efficiency of the schools themselves, but simply to see whether the conditions are fulfilled on which a grant of public money is to be made, and to determine the sum which the managers of the school are entitled to claim. Incidentally, it may be that the annual inspection and examination reveal weak points, bring to bear on the worst schools the experience obtained from the best, and help all of them to reach a higher ideal than they would attain if left to themselves. But this was not the purpose originally contemplated in the appointment of inspectors. That purpose simply was to secure the wise and honest administration of the Imperial grant.

Now, the question often arises, if inspection and examination by skilled experts have proved to be good and serviceable things in themselves, quite apart from the distribution of the public money, why should they not be extended to schools of a higher class. Often we hear from the parents of children in the upper and middle class, the complaint, that this particular form of stimulus and help is inaccessible to them and to the schools which their children attend. There was an echo of this demand heard very audibly in this section yesterday afternoon. That

part of the community which uses secondary schools says in effect, "We have seen how greatly public elementary education has been improved of late. We attribute that improvement largely to the two conditions on which the State insists; (1) That the schools shall be under the care of properly qualified teachers; and (2) That they shall be annually examined and publicly reported on. Now, for our own children we do not want money nor grants in any form; but we do want guidance and supervision; we want to be assured that the school premises are in a right condition and are suited for their purpose; that the teachers know their business, and that this business is properly done. The rule *caveat emptor* does not wholly apply in this case. For we, the *emptores*, do not know, and cannot know, what precautions we ought to take, because we do not know what is going on in the schools."

But at present the governors of an endowed or proprietary school, or the heads of a private establishment, however desirous they may be to place themselves *en rapport* with the general system of public education in England, can find no help from the State or the Education Department. If they are remote from any of the great centres of population they are sometimes content to call in the aid of some neighbouring clergyman or scholar to examine the boys. If, however, they desire a separate examination of their selected scholars or a leaving certificate for the scholars at the end of their career, they have within reach the Oxford and Cambridge Local Examinations, the examination for matriculation of the University of London, and the examination of the College of Preceptors. If the schools are of what is called the first grade in close connection with the Universities, they can avail themselves of the Oxford and Cambridge Joint Board, which will not only examine the scholars generally but will confer leaving certificates. These certificates will under arrangement with the principal Colleges of Oxford and Cambridge be accepted as equivalent to matriculation. So that an examination will serve two purposes; the one as a *terminus ad quem*,

relatively to the public school course; the other as a *terminus a quo*, relatively to the course of the University student.

So far as the testing of separate scholars is concerned, the provision thus made by public bodies is probably sufficient. The Universities give several classes of certificate adapted to scholars of different ages, and offering a considerable range of choice as to subjects. The College of Preceptors offers to the less ambitious class of private scholars similar advantages. And there can be hardly any well-conducted school, fairly abreast with modern requirements, which cannot find among the numerous programmes thus issued some one which will suit its own special aims and its course of instruction.

Besides these separate examinations, however, the Syndicate of the University of Cambridge and the Senate of the University of London undertake, under certain conditions, to inspect as well as examine entire schools, or such classes or divisions of them as may be submitted to their criticism by the governors. This is a step considerably in advance of that contemplated when the University Local Examinations were established. I will read to you from the regulations issued by the University of London, the conditions under which such inspection is generally conducted:—

"1. Application should be made by the Governing Body of the School, if such School is under the management of Trustees or Governors; or otherwise, by the Principal of the School.

"2. Every application should be forwarded at least two months before the proposed time of examination, and should specify:

(*a*) The number of classes in the School, and the number and average age of the scholars in each class.

(*b*) The subjects of instruction, the text-books in use, and the degree of proficiency attained in each class.

(*c*) The prizes or other distinctions, if any, which the Examiner is expected to award.

(*d*) The extent to which the teachers of the School will be willing to assist, if desired, in the conduct of the examination.

(*e*) Any other particulars, which, in the judgment of the authorities of the School, are of material importance for the information or guidance of the Examiner.

"3. The Examination will, as nearly as possible, follow the course of the ordinary School-work, and will extend to the subjects usually taught in Grammar and other Secondary and High Schools.

"4. The Examiner will report—unless, for any reason approved by the Senate, the range of the Examination should be specially restricted—on the work of each class; on the proficiency attained in respect to each subject of instruction; and on the methods, discipline, and general condition of the School. His report will be in the first instance submitted to the Senate, by whom a copy will be communicated to the Governing Body or to the Head Master or Mistress.

"5. It is required that if the authorities of the School print or publish the Report, it shall be reproduced in full; and that a copy of such publication shall in every case be sent to the Registrar."

It must be owned that these arrangements, though they have proved most useful and acceptable, have not been very extensively used; and that the number of schools which have submitted themselves to the *inspection* of Cambridge or of the London University is not at present large. I attribute this fact partly to the very considerable cost of such inspection, and partly to the fact that, while both Universities can command the services of skilled examiners in particular subjects, neither possesses a staff of *Inspectors* trained by experience and by special study for the discharge of so delicate and difficult a duty as the estimation of the whole organisation, spirit, and work of a school.

The question then occurs: Is there need of any further public measure for providing schools which are not elementary with the same kind of test and public supervision that now exists in connection with the schools aided by the Government? It is a curious accident that this question happens to have come within the range of practical politics during the last two days. It was only yesterday that the Report of the Select Committee appointed by the House of Commons to consider the constitution and work of the Education Department was made public. In it the Committee, besides recommending the appointment of a Minister of Public Instruction with enlarged power and dignity, propose that the Department presided over by this Minister shall have power in the case of all Endowed Schools to call for the production of any particulars or facts respecting them, and, if it deems it expedient, to inspect and examine them. And although in the case of the seven great public schools, it is not recommended that they be subject to actual inspection, yet even in them the Minister of Education is to have power to enquire and call for all needful documents and evidence respecting their condition from year to year. This Report indicates an important movement of public opinion in a comparatively new direction. It has long been felt that the Endowed Schools Act of 1869 was an incomplete measure, notwithstanding the enormous public service which it has accomplished. Under its provisions the Commissioners have framed schemes for re-organising nearly all the endowed foundation schools of the country. The course of instruction has been modernised, freehold rights as to masters and antiquated restrictions as to scholars have disappeared, governing bodies have been re-cast and made more representative and responsible, and the schools have in many cases taken a new lease of life and usefulness. But it was a grave defect in the Act—one which indeed its author, Mr. Forster, attempted at the time, but failed, to supply—that, while the Commissioners were empowered to frame schemes, they had no power to see how those

schemes were carried out. Once the new scheme becomes law, the new governing body is left to give effect to it, with no other check than may be furnished by public opinion and criticism, and the fear of a Court of Equity. The nation has not, in fact, reserved to itself under the Endowed Schools Act any power to inspect annually the re-constituted schools, and to see whether the new provisions are being worked out honestly and to the public advantage. But it will probably be allowed even by those who, like Mr. Herbert Spencer, look with the greatest suspicion and dread upon the enlargement of the functions of the State in this direction, that every reason which justified the enactment of the law of 1869, and a reform of the trust deeds by which the endowed schools were previously governed, will justify also such other public measures as are needful for giving full effect to that reform. The State is in fact the supreme trustee of all endowments. In the unavoidable absence of the pious founder himself, the State must assume the right of interpreting his directions where they are obscure, of modifying them where they are clearly unworkable or opposed to the public interest, of seeing that they are honestly administered, and of doing, in short, what he himself, if he were as wise and benevolent as he is reputed to have been, would have done, to adapt his institution to the changed circumstances and needs of successive generations, and to enable the community to derive the largest possible benefit from his bounty.

We are likely, therefore, soon to make a distinct advance towards that organisation of secondary education in England, which has long been so earnestly desired by the wisest of our statesmen and teachers. The endowed schools, though they do not cover the whole, or nearly the whole of the ground, have in their control a substantial part of the secondary and higher education of the country. It will be a great gain if all these institutions are brought definitely within the scope of public supervision, and that the public should learn periodically what they are doing, as well as what they were meant to do.

But from one danger it is to be expected that we may keep free. There will, we may anticipate, be no aim at uniformity, no course of instruction prescribed by authority, and no standards. All these things are, to some extent, necessary in the case of the primary schools, because they receive a grant. When public money has to be distributed, it becomes essential to lay down very definite conditions; to require, at any rate, a minimum of attainment in certain subjects which are universally regarded as indispensable; and to mark out with some precision, the character of the requirements in regard to those subjects and parts of the school-work in which liberty of choice is permitted. But in the Secondary Schools there is no grant to be awarded, and no necessity for laying down any course or official ideal whatever. It is impossible, of course, to forecast the view which the newly-constituted public Department will take of its duties to the Endowed Schools. But it may be conjectured that its attitude will be that of an enquirer, a helper, a reporter, an interviewer, if you please, rather than that of a master. It may suffice to say to each Endowed School in turn "What is it you propose to do? What are your own plans? What is your own ideal? Now show us how you seek to realise it, and what you have done, or if your school has been examined by the University or other public authorities, let us see their report." After all, what the public want is to know the facts, not to impose upon schools any scheme or theory of instruction of its own. The greater variety we can have in the types of schools, the larger the number of able and enthusiastic men and women whom we can contrive to leave free to carry out their own theories, and even to try new experiments in education, the better for the community.

Here, then, we have the problem before us, how to give parents authentic knowledge of what schools are doing, and perfect guarantees of efficiency, and at the same time to leave to teachers, and to governing bodies, that large freedom, that sense of independence and of responsibility, and that encouragement to spontaneous

effort, which have long characterised English schools, and which are so indispensable to the maintenance of all that is best in the national character. We want, in short, to make this great modern instrument of examinations a useful servant, and not an imperious master. And in our discussion to-day I do not doubt that we shall see our way more clearly to the solution of this problem.

The CHAIRMAN (Sir Thomas Brassey):—Ladies and Gentlemen, I presume it will be your wish that we should hear the papers read before we commence the discussion upon them. Mr. Browne himself is not here, but his paper is in my hands, and it has been suggested that I should read it.

The CHAIRMAN then read the following paper:—

LOCAL EXAMINATIONS.

By the Rev. G. F. BROWNE, B.D.

I DO not propose to enter into the history of the Local Examinations, instituted by Oxford and Cambridge twenty-seven years ago. Nor shall I deal with the statistics of the subject, the number of candidates examined, and the percentages of failure and success. The shortness of the time allowed for this paper, and the character of the present conference,* point to the propriety of raising in general terms, and with a brevity which must leave much unsaid, the chief questions which occur to my mind as I look back upon fifteen years of very close connection with the Local Examinations. It will clearly not be any part of my duty to act as an advocate in cases where the Local Examinations of my own University differ in practice or principle from those of the University of Oxford or of other bodies. And I am anxious to say positively that I

* The writer had supposed that the object of the conference was to discuss the actual working of various kinds of educational machinery. —G. F. B.

represent only my own views, and that nothing which I may say must be taken as coming from the body of men, whose officer and colleague I am, to whom the supreme management of the Cambridge Local Examinations has been delegated by the University.

It will be sufficient to say, by way of formal introduction, that, so far as the Universities of Oxford and Cambridge are concerned, each University holds simultaneously in each year, Oxford in summer and Cambridge in winter, two Local Examinations, one for senior students, under 18 years of age, and one for junior students, under 16 years of age. The examinations are held at a large number of centres, some of which are populous towns while others are isolated schools. A presiding examiner is sent to each centre, who takes with him a supply of the papers of questions sufficient for all the candidates at his centre, and conducts the whole mechanical work of the examination during the examination week, receiving such practical assistance as is needed from the Local Committee and the Local Secretary at the centre. The papers of questions are the same at all the centres, and each is given out at all the centres at exactly the same time, and the answers to each are collected at the same time. Every care is taken not only to prevent anything improper and unfair, but also to meet the extremest demands of public opinion in regard to precautionary measures. The subjects of the Cambridge Examination include: Reading, Writing, Dictation, English Grammar, Arithmetic; Religious Knowledge; English History, Geography, English Literature, Political Economy, Essay Writing; Latin, Greek, French, German; Euclid, Algebra, Trigonometry, Mechanics and Applied Mathematics; Elementary Biology, Chemistry theoretical and practical, Heat, Statics, Hydrostatics, Electricity and Magnetism, experimentally treated, Botany, Zoology, Physical Geography in its wider sense; Drawing,—Freehand, Model, Geometrical, Perspective, Imitative Colouring; and Music (not instrumental or vocal). With certain limitations, students select their own subjects; certain subjects

are compulsory, and no one is held to have passed the examination who does not satisfy the examiners in the compulsory subjects and in a certain number of selected subjects. For some years only boys were admitted to the examinations, but for the last twenty years or so girls have been admitted. Oxford and Cambridge examine between ten and eleven thousand candidates a year.

Besides these Local Examinations for boys and girls, Cambridge established, some fifteen years ago, examinations with a similar mechanism for women over the age of 18, and these examinations have now been opened to men. The candidates this year were nearly 1000, of whom only about 20 were men. Out of this examination has grown the admission of women to the Honour Examinations at the Universities themselves. The present Paper will be confined entirely to the Local Examinations for boys and girls.

The object of the Local Examinations is to assist and improve the education of boys and girls, so far as teaching and learning are concerned, by supplying a curriculum, a standard, and a stimulus. The schools which send candidates range from large grammar and county schools to small private schools. A large number of schools which do not send candidates are indirectly affected, being guided by the subjects set forth in the regulations each year, and testing their students by means of the papers of questions, which are published after each examination. From some schools whole classes are sent in as candidates, while from others only selected students are entered; in either case the influence of the examinations is felt far beyond the class or the individuals who are being prepared for the next examination. Thus the mere number of candidates examined gives a very inadequate estimate of the work that is being done.

I have spoken of a curriculum, a standard, and a stimulus. Each of these means a very grave responsibility. They may be considered separately.

CURRICULUM.—It will have been noticed that there is a

very wide choice of subjects—indeed the only additions which I can remember as having been asked for by teachers are Roman History and the Laws of Health. It is evidently out of the question to allow candidates to take as many of the subjects as they please, and if I do not enter into the details of the restrictions imposed, it is chiefly because the arrangements made by the different examining bodies differ to a certain extent, and it would be tedious to recite them all. Even with these restrictions it is very possible for candidates who are not physically strong, or not well prepared, to take more subjects than considerations of health—bodily and intellectual—would allow. For a well-ordered school, the natural course is to enter the student for examination in the branches of study pursued in the school, and it would be unreasonable to impose restrictions which would preclude this. The function of the examining bodies is rather to do what may be done to prevent excessive or very one-sided work. For the former, the only precaution possible seems to be some limitation in the number of subjects that may be taken by a candidate; nothing done by the examining bodies can prevent excessive labour being bestowed upon the subjects taken. For the latter, the grouping of subjects can in some cases be made sufficient; examples of this would be found in regulations that Euclid and Algebra cannot be taken separately, that any one who takes History must take Geography, that Practical Chemistry cannot be taken without some theoretical work, and so on. There is the other extreme, too few subjects, to be guarded against, and the simple precaution is to fix a minimum number of subjects and refuse a certificate to all who do not pass in at least this minimum number of subjects. But here a more difficult question arises, are there any subjects—and, if so, what are they—in which you will require all candidates to pass in order to obtain a certificate? The answer given by Cambridge is, that those who shew proficiency in what are ordinarily known as the English subjects, that is to say, Arithmetic, Grammar, Dictation, Scripture, Geography,

History, may receive a certificate of the lowest class, specially devised for these candidates. Oxford requires that each shall pass in a language or some mathematical or natural science. If experience shewed that the Cambridge regulation encouraged teachers to keep their pupils to the English subjects, not pushing them on to any language or any science, I should condemn it. But the evidence is to the effect that very few indeed* enter for these subjects only, and they are usually either very young or immature children, or they are pupils in schools which are making a first venture in the Local Examinations with a view to proceeding to a fuller school course if they succeed in obtaining encouragement. The latter class I should be very unwilling to exclude, feeling, as I do, that the examinations do at least as important a work in drawing on backward schools as in testing and praising good schools. The number of certificates of the lowest grade given† by Cambridge is larger than the number of students who enter for the English subjects only, for a considerable number of those who enter for the more ambitious subjects fail in them, and pass only in the English subjects. It seems quite possible, in the abstract, that a higher standard can be maintained in these more ambitious subjects when it is known that rejection in them does not mean absolute rejection for the whole examination. Another important question with regard to some of these English subjects, whether candidates should be either required or encouraged to present them for examination after they have once passed in them, will be referred to under the head of *Standard.*

Probably no question has been more frequently and anxiously discussed among those who manage the Local Examinations than the complicated question of the treatment of languages. In many subjects the difficulty of the papers and the percentage of marks to be required are the chief matters for consideration, but very much more

* In December, 1883, 43 boys out of 4400 and 26 girls out of 2164.

† In December, 1883, 43 to boys and 32 to girls.

than this has to be considered in the case of languages. Shall there be set books or shall there be no set books? Shall candidates be allowed to pass if they obtain a certain percentage of the marks, or shall they be required to reach a certain standard in various branches of the subject, in accidence, in translation of English passages into the language, and, if there be set books, in the subject-matter of the books and in the translation of passages from other books not previously prepared? Some of these are very anxious questions for those who feel how grave a responsibility rests upon them, and how mischievous their action may prove to be if they ask for too much, or are satisfied with too little.

With regard to the question of set books or no set books, it must be remembered that we are dealing with boys and girls, of whom a large majority are under the age of sixteen; and though many of the schools which prepare candidates are as good as schools can be, we have to take into account many schools where from one cause or another the teaching is not of the highest order. It must be remembered, too, that if there are no set books there can be no questions on the subject-matter of any books the students may read, and in that case the natural tendency of the student, if not of the teacher, is to neglect the subject-matter to a certain extent. There is an educational advantage, of which it is well not to lose sight, in the consciousness on the part of a boy or girl that one whole book has been thoroughly prepared in all its parts and in all its aspects and relations. This sense of concentration and thoroughness can scarcely be acquired when the object has been to prepare for an examination in the language in which the book is written, with the probability that no single sentence of the book will form the subject of any question, and the certainty that no question will be set with special reference to the book. The preparation of a set text is apt to become somewhat slavish in ordinary hands, but even so it has the educational merit of being an achievement, a long and laborious task grappled with

and done. While a good teacher will make educational profit of either plan, I can imagine an adept in the art of mechanical preparation maintaining that the qualities of mind which his method fosters are as valuable as those fostered by that class of successful practitioners of the other method, the secret of whose success is that they invest the process of ferreting out the sense of a series of disconnected passages with some of the charms of a rat hunt. On the other hand, it is pleasant for a schoolmaster —I speak in the recollection of a time when I was a schoolmaster myself—to select his own books. He has his favourites, both from a literary and from an educational point of view. But it must be remembered that if no books are set it is possible for a school to have far too little change from one year to another.

The best course appears to be to adopt a combination of the two methods—not a compromise—by setting each year in each language two books, of which each candidate must choose one, of such a length as not properly to employ more than two-thirds of the time usually allotted in schools to the translation of the language, the remainder of the time being kept free for reading some book selected by the master. The paper should contain in equal proportions passages from the set book and from other books, as many marks being given to one as to the other, and there should be an easy test-piece for 'unprepared' translation without success in which no candidate should be allowed to pass. By this arrangement no one who is not fairly able to grapple with passages he has not seen before would be able to obtain heavy marks in the language, while those who neglect the sustained effort of preparing a set book would be at a similar though probably a less disadvantage. In any case it should be impossible for a candidate to obtain "distinction" in a language—or at least in French, German, or Latin—without acquitting himself fairly in composition.

The question most prominent in my recent experience is the amount of requirement which is reasonable in Natural

Science, especially in the subjects of Zoology and Botany. Acting under the advice of men distinguished in Natural Science, Cambridge has considerably extended its requirements. It now does not allow senior students to pass in Zoology alone, or in Botany alone, but requires besides that they shall satisfy the examiners in a paper on Elementary Biology ; while, of junior students, who enter for these subjects, it requires that they shall either pass in both of the two subjects, Botany and Zoology, or shall reach a higher standard of marks than has hitherto sufficed in one and shall also show some knowledge of the physiological side of the subject. That these demands, if fully met, would greatly improve the teaching of Natural Science in schools, is obvious. Whether the University would give a certificate in Natural Science too easily if it continued to give one on less than is now demanded, is another question. The evidence, so far, seems to shew that many schools which can secure a teacher of ordinary Botany, or ordinary Zoology, cannot secure a teacher of both, and cannot afford a teacher in each. Considering the very great attention which is paid to the teaching of Natural Science in the Universities and in schools, the questions raised in this branch of the Local Examinations deserve, and will doubtless receive, the most careful consideration.

The inclusion of Drawing in the curriculum is open to some question. I do not attach weight to the objection that a university has no special aptitude for examining in drawing, for we can always secure the services of adepts outside our own body, if necessary. Nor am I inclined to deny the educational value of the careful study of drawing. But so long as there is any indication of relative position as determined by the total number of marks gained in the whole examination, I feel much unwillingness—to take an extreme, but by no means impossible case—in placing in an honour class a candidate who does good work all round, and obtains marks in drawing, while a schoolfellow, who is slightly superior to him in the other subjects of examination, but does not take drawing, misses the honour class.

STANDARD.—It would be unreasonable in examinations of this character to set the standard so high as to exclude from the chance of passing in any given subject any student of average intelligence fairly well prepared in the subject. The proper place for severity of standard is in fixing the limit below which no one shall be accounted to have passed with distinction in a subject. There is the further question of the standard or standards for the class or classes of honours.

To have in any subject a rigid standard of marks for passing and a rigid standard for distinction would be unfair, unless, indeed, papers of questions could be made by machinery, of exactly equal difficulty from year to year. Any examiner of experience knows how impossible it is for him to determine the exact difficulty of his paper until he is able to consider it in the light of the answers given by the candidates. This is sufficient in itself to dispose of the proposal, urged recently by many of those who prepare candidates for these examinations, that the standards should be announced beforehand. Extreme care should be taken that the difficulty of passing in one year should be as nearly as possible the same as in another; and an examining body which had tied its hands by announcing its standards would find itself hampered in its endeavours to secure this, and eventually driven to a manipulation of the marks actually obtained. The question has frequently to be put to a body of examiners: "Do you feel that with these standards you are rejecting candidates who ought to pass, or passing some who ought to fail?" The supreme authorities ought to be in a position to deal fully and honestly with the answer, in order to prevent anomalies.

In my own experience there is a constant complaint that the standards are being raised year by year. There has not, to my knowledge, been any case of a raised standard without due warning, in the Report on the Examination of the previous year, that the examiners are of opinion the standard should be somewhat raised. I am

speaking now of papers where there has been no change in the character of the requirements such as has taken place in regard to languages. There is no doubt that the general tendency has been towards a higher standard than was at first set, and in the course of twenty-seven years the difference is in some cases considerable. But no one who considers the question impartially will be inclined to say that the average boy of 1884 ought not to be expected to be better able to grapple with examination papers than the average boy of 1858. I am far from desiring to express the opinion that the constant practice in examinations gives any great advantage to the boy of 1884 over his predecessor of 1858. I should like to say here what I have very frequently had to say to correspondents, that even schoolmasters and schoolmistresses do not know what nonsense their pupils can put down in an examination, some from nervousness, but many more from carelessness,—sometimes gross carelessness which would receive very prompt treatment if the teacher saw the answers. This is a fruitful cause of complaint of raised standard.

In considering the question of the standard for an honour class we have to ask first, whether certain subjects should not have greater weight than others in determining the admission of a candidate into an honour class ; and I can scarcely see the possibility of maintaining that they should not. The natural course is to assign to the various subjects a larger or a smaller number of full marks, according as they require for their preparation a greater or a less amount of time and effort. When this has been done, the total number of marks obtained by a candidate in all the subjects he takes will afford the best test of his fitness for a place in the honour class. It is sometimes objected that there is something unscientific, and contrary to sound educational principle, in giving an honour class for a certain total of marks, no matter what the subjects are ; but the objection loses its sting when the examining body is able to reply that all possible care has been taken to make it matter very much what the subjects are.

There is one point connected with the standard for a class in honours which is well worthy of careful consideration, and has for some time engaged my own attention. We will say that a boy of 16½ years of age obtains a place in an honour class by taking up all the ordinary subjects of a good school. Among his subjects have been English Grammar, Geography, English History. When he enters again at 17½, are we to excuse him from the necessity of keeping up these subjects at examination pitch, and make some reduction in our standard of total marks? From an educational point of view, he had better be spending on something more bracing that number of hours which from 15½ to 16½ he devoted to carrying himself to the highest point of proficiency in these subjects; and yet, from an examination point of view, he must, in his second examination as in his first, gain as many marks as possible in each of his subjects. The solution of the question is rendered almost hopeless by the fact that, except in schools under specially enlightened management, subjects which are not being directly prepared for the examination are very likely to be neglected.

STIMULUS.—It need scarcely be pointed out that in a large number of cases the opportunity of favourable comparison with other schools is a stronger incentive to teachers and to taught, than the desire to obtain a good report from an examiner who has no obvious means of comparison on a large scale. Those who have to do with the examination of single schools know how often the masters or mistresses wish to learn the examiner's opinion of their school as compared with other like schools. The Local Examinations perform a useful function in enabling teachers to institute such a comparison, and there are many schools which have very greatly improved their methods and very considerably enlarged their curriculum as the result of this comparison.

The smallest stimulus which is sufficient is the largest which should be brought to bear upon boys and girls. As far as possible the aim should be to encourage them to work for actual rather than relative success. The desire to

obtain a certificate, and to be so well prepared all round that all the subjects taken, whether many or few, shall appear on the certificate, is all that is wanted in many cases. But it is not fair to a brilliant boy to tell him that however well he may work he cannot raise himself above the general crowd. Schoolmasters know how unwilling they are to have to keep a quick boy to the slow pace of an ordinary class, and how much such a boy is sometimes discouraged. There are good reasons for doing this to a certain extent in a school, but it seems unnecessary in an open examination, and if unnecessary it should be avoided. The candidates should have before them the possibility of obtaining some indication of special success in any given subject. This the Local Examinations accomplish by a simple process, and there can be no doubt that the hope of doing well enough in a subject to earn this mark of honour has had a very decided effect with a very large number of students. Some of the examining bodies go even further than this, and publish a list of those who are "distinguished" in each of the subjects of examination, the list for each subject being arranged in order of merit. It is probable that but for pressure from the outside this highly developed form of stimulus would not have been allowed.

Besides special success in one or more subjects, there is the question of marked success in the whole examination. Here again it seems unnecessary and unfair to withhold all public acknowledgment, while to withhold it in public and convey it in private is open to serious objections and is, in fact, fallacious. Thus the principle of issuing a list of those who merely pass and a list of those who pass with considerable credit is forced upon us. But when that principle is conceded we have two very grave questions to face: (1) Shall we have only two lists, one of those who merely pass and the other of those who pass with real credit, with that tremendous gulf—as it is to those who are on either side of it—which may mean only one mark or two marks out of two or three hundred, or shall we lead down to the gulf by degrees, by issuing lists (*a*) of those who greatly distinguish

themselves, (*b*) of those who are really good but only in a second flight, (*c*) of those who are too good to be classed with the mere average candidate, and then (*d*) of all the rest of those who pass at all?—(2), Shall we arrange the one list or two or three lists of honours alphabetically or in order of merit? The different examining bodies give such different answers to these questions, and I am so unwilling to appear as a partisan, that I leave them unanswered.

And now, having done all that can in reason be expected to encourage the student and to inform the teacher, is there anything which the examining bodies can do to check the over-exertion which they must so seriously deprecate? I have come to the conclusion that there is not. Suppose we are told that a girl's health is injured by her being allowed to take more subjects than she can really prepare. We can only reply that our general regulations cannot take into account differences of health and ability among the candidates, but must be alike for all; that many candidates take without harm the maximum number of subjects; and above all, that whatever maximum we allow, students will be found who are not equal to taking the maximum and yet do take it. And if we were to reduce the maximum, we have no guarantee that the students who now take too many subjects would not be forced into excessive labour in the preparation of the reduced number of subjects. The examining bodies are helpless in the presence of over-eagerness.

A few words in conclusion on the business value and on the future of the Local Examinations.

Certificates of having passed the Local Examinations, under certain conditions in some cases, excuse boys from the preliminary examinations for medical and law students, &c. But besides this formal value, they are now asked for as a matter of course from applicants for clerkships in banks and mercantile houses, to an extent which is not generally known or imagined; and even where they are not asked for, the possession of them settles many a ques-

tion of choice among rival applicants. They have a direct value at the Universities, excusing the holders from various preliminary examinations. Their value in this respect would be greatly increased if the Universities could agree to accept under proper conditions each the certificates of the other ; and I cannot help feeling that the Universities might recompense themselves for the effort they have to make to conduct the Local Examinations if they more directly made use of these examinations as entrance or matriculation or previous examinations, held as they are at so many convenient centres.

With regard to the future of the Local Examinations, I should hope that they are destined to play a very much larger part than they have hitherto played. The time must come when all schools must give some evidence annually of their condition. The Local Examinations in one form or another afford for the great mass of schools, outside those under Government inspection, the one remedy against State interference. I use the phrase State interference in no political or hostile sense, and I believe that the State would think many times before committing itself to the inspection of second and higher grade schools. In the elasticity which is afforded by the existence of several independent examining bodies, with the credit and reputation of a University at stake, and in the fact that the schools pay directly for each student entered and have a right to see that they get their full money's worth, there is freedom from the iron uniformity and officialism which must attend even the wisest centralisation of active control over the upper schools of the kingdom.

THE EXAMINATION OF SCHOLARS BY THE STATE.

By W. KENNEDY, M.A.,
School Board, Glasgow.

IN treating of this subject I shall hold examination to include inspection; that is to say, I shall venture to speak not only of the process of questioning the scholars orally or in writing, but also the whole enquiry into the circumstances, construction, and apparatus of the school, the manner in which the scholars are classified, and generally all the varied and complicated work which falls to be discharged by an inspector on his visits. It would not be difficult to show that considering the importance of education to the national welfare the State would be entitled from time to time to ascertain to what extent those professing to teach the young were really doing so, and this altogether apart from any money subvention or other advantage conferred either on the teacher or the scholar. But it is a somewhat melancholy feature of the history of our country that until comparatively recent years the State has shown very little solicitude on this point. Its attitude has been one of comparative indifference. When, however, more than fifty years ago, the State determined to give money grants for education, a system of school inspection and school examination was commenced. This has grown to be the enormous and complicated machinery which now exists; but it has all along been associated with the payment of a money grant by the State, by whom, as a rule, no claim has been made for inspection and examination apart from such grant. While the conjunction is, in some respects, quite natural, one unfortunate result has flowed from it. It has brought examination and money into too close proximity, and hence it was only to be expected that in course of time the State's relation to education should be formulated into the

payment for a certain amount of education of good value, as one goes to the market to buy a certain quantity of butter or a certain number of eggs of good value.

May I pause to give an illustration of how deeply this money idea of education has permeated the English official mind, an illustration which enables me to air an existing Scotch grievance?

The Scotch higher-class schools, although declared to be public schools and under the School Boards, were, by the Act of 1872, not put under any uniform inspection, but by the Act of 1878 the Education Department were empowered to examine those schools. Application has been made every year for this being done, but the Department have been uniformly unable to comply, simply because the Treasury refuse to vote the money necessary to pay the inspectors. No grant is paid to these higher schools; and so from the official point of view, it seems a matter of supreme indifference to the State whether the education given in these schools is good, worth nothing at all, or absolutely pernicious.

Without denying the State's right to see that its money is properly spent, it is argued that so limited a view tends to degrade inspection and examination. On the other hand, it has been urged that such a system is sound, economically and educationally—you only pay for what is good, and what is bad costs you nothing. This would be quite sound if the State stood to the children in the same relation as a purchaser does to the article to be purchased. But the relation is very different. The children examined from year to year will, in another generation, be the only materials of which the State can be composed—they are in fact the State *in posse*—and on their training, in the widest sense of the word, depend the complexion and character, and it may be the very existence of the State in the future. Hence it is a poor boast for the State to say—We found by inspection only 50 per cent. of the children educated, and have had to pay accordingly. As for the other 50 per cent. being ill-educated, they cost us nothing.

If this is all examination can do, it is doubtful whether it is not evil, and only evil. The percentage for whom the nation pays would likely receive some education, in almost any circumstances. Examination does only half the work when it points out weaknesses. It ought to state specifically what these weaknesses are, where they are, and how they are to be remedied. It should be a matter of painful interest to the State if any considerable proportion of children are found uneducated from year to year. The inspector is the principal official to find out the reason why, and to bring it under the notice, not only of his superiors, but of the board, and managers, and the teachers as well. Of course, we shall never bring up all children to the minimum which may be reasonably expected. But, excluding exceptional cases, is there not a minimum which the average child should attain before he launches his own bark on the sea of life? Inspection and examination will, I hold, largely fail as educational appliances if they do not contribute to diminish the number who fail to reach the minimum from year to year. My first point then is that the be-all and end-all of examination is not merely to find out how much money has been earned, but to discover weaknesses as well as merits, and recommend remedies for the former.

What then should be the features of examination which we may expect to conduce to such ends? It is answered —first, it must be conducted by men thoroughly equipped and competent for their work. If an inspector is to be a mere detective to spy out mistakes in registers and omissions in log books, one class of men could easily be got to do the work. If again an inspector is merely required to examine in the routine work of the earlier standards and record the results, another set of men can easily be procured. But is there not something more than all this required? Is there not to be desired a thorough knowledge of educational methods and principles, a love of teaching, faith in the results of education—not the mere

negative power to say this is wrong, but the opposite ability to show how what is wrong may be made right, how what is bad may be made good, how what is weak may be strengthened? A carefully prepared and detailed report is an enormous educational lever to a school. I am officially connected with a Board in whose schools the three standard subjects are all but mastered by about 95 per cent. of the scholars examined. This result may be attributed to various causes, but I venture to assign one sometimes overlooked, and that is, full, detailed, and suggestive reports received from Her Majesty's Inspectors. Let me take two opposite cases. One is of a school where the report consists of, it may be, four lines, and, on the whole, a satisfactory enough report it is, but containing no suggestion, no encouragement, no warning—no stimulus of any kind. Let me take another, where details are given of the way in which every standard, and every class subject, and every specific subject have been handled, with commendation or condemnation of teachers, and classes where either seems merited, and where suggestions for improvements in discipline, in organisation, in apparatus, are given in the most friendly spirit and tone. Let such a report be made a subject of study by all concerned. Above all, let them be asked to consider and attempt to work all remedies recommended. If the managers are alive to their duty, they will know who is responsible for every standard, and for every part of the work, and they will meet with the teachers, talk over the report in a friendly spirit, and do their united best to make progress. The educational differences between two such reports are incalculable. That I have not been drawing an ideal picture, all who are familiar with school inspections must know. Waiving any specimen of the meagre reports of which I have been speaking, permit me to summarise two reports of the type I am commending—omitting all reference to persons and places. In the first report certain defects are pointed out. Between it and the second a loyal attempt was made by all concerned

to arrive at a better state of things, and the second report indicates a measure of success. The two reports are on the same school.

FIRST REPORT.

"This school is conducted with evident fidelity, and, in view of the somewhat backward class of children by which it is chiefly attended, its condition is, in several respects, very creditable. The appearance made in standard work is, on the whole, good. There is, however, considerable stiffness in the reading of a section of the second, and in the arithmetic of the third. The general intelligence of the classes from which these two standards are drawn is barely fair, and there is decided room for a general bracing-up of the instruction at this point. In the fifth, while much good work has evidently been done, there is a somewhat too large section of backward pupils. Weakness in parsing and analysis has occasioned several failures in reading at this stage, and grammar can hardly fail to continue weak in this standard until the subject be taken up with more fulness and intelligence than it is at present in the fourth and lower standards. In geography and history the answering by a section of the classes was satisfactory, but here again there was too large a fag-end. The infants, along with a section of the first standard, are managed with creditable spirit and tact by Miss ——. Industrial work is not in a very satisfactory condition. From the second standard upwards a large number of girls had no specimen of plain white seam to show. The reason assigned for this was that, although the girls had done sewing throughout the year, the work was required at home as soon as it was finished, and that they were engaged upon knitting until they should bring a new seam. This cannot be regarded as sufficient. The progress in this branch cannot be satisfactory if it is to depend upon the caprice of ignorant parents. The pupils should be classified in this as in the other subjects, according to their proficiency, and the instruction carried on in a regularly graded system. The

ample staff of mistresses in the school should have no difficulty in carrying out, at least approximately, the requirements of the needlework schedule of the Code, and this will be looked for next year. The pupils sing very well in all the departments."

SECOND REPORT.

"The school has risen very considerably in efficiency since last inspection, and a hearty, and on the whole successful effort, has been made to remedy the defects that were then pointed out. With the exception of a somewhat marked weakness in the arithmetic of the third standard, the pass work in the three lower standards has been done with all but complete success. The intelligence of the second standard was on the whole good; that of the third very fair. The grammar of the senior section of the second standard and of the whole of the third was considerably ahead of the requirements of the Code. In both classes, but more particularly in the third, there is still room for the infusion of more brightness and life into the work. The fourth standard, taught by Mr. ——, and composed mainly of rather backward-looking children, made throughout an excellent appearance, and had evidently been trained with a painstaking skill and fidelity which deserve special praise. The composition of the fifth standard was generally of moderate quality, and a good many of the passes were somewhat bare. There is also in this standard a considerable percentage of failure in reading, occasioned by weak grasp of grammar and feeble comprehension of the subject-matter of the reading lessons. In view of this the judiciousness of burdening the pupils with two specific subjects, one of them French, is doubtful. The grant for geography and history was creditably earned. Miss —— trains the infant department, which includes the junior section of the first standard, with very satisfactory taste and skill. The industrial work is now on a very sound basis, and the mistresses deserve the greatest credit for the hearty and thoroughly successful effort which they have

made to work out the requirements of the needlework schedule. Very good singing throughout the school. A very satisfactory feature is the particularly large number of infants qualified by attendance."

Such results are born of confidence on all sides,—confidence on the part of the inspector, in the honesty and good faith of the managers, and in the fidelity and competency of the staff; and confidence on their part, again, in the inspector's fairness, experience, and knowledge of educational methods.

But how are we to continue to get a supply of the men and the women competent for such work? It is at once allowed that the inspectorate as a body is one of which any nation may be proud. But the past has been exceptional, and in the earlier stages the State was exceptionally fortunate in the eminent men secured as inspectors. The schools are now inspected by more than 300 officers of all grades, and the system is bound to expand all over the country. How to secure the right men for the discharge of these all-important duties is one of the educational questions of the day.

Let us hope that, with the powerful support recently given to the appointment of a Minister of Education, the creation of such an office may not be far distant, and that if not before such an appointment at least shortly after, there will be a definite scheme for the selection and training of those who will in the future play so prominent a part in the education of the country. One of the many anomalies connected with the appointment of inspectors is that it should be in the hands of any other than the Minister who by common consent and invariable practice has most to do with the education of the country. This should no longer be.

Let me also venture to express the hope that while men may be brought in comparatively young and untrained to certain parts of the work, the final report on the condition of a large school should not be left in any hands

but those of an experienced inspector who has been a practical teacher.

Secondly: Examination and inspection should not only be conducted by competent men, but by men who approach the work with, as nearly as may be, uniformity of idea and uniformity of standard.

It is to the want of these to which we may attribute not a little of the discontent which has recently been manifested with inspection-results. The Education Department have at once acknowledged the existence and the magnitude of the evil; and this has been done in terms equally plain and strong.

In the revised instructions recently issued to H.M. Inspectors, the following paragraph occurs:—

"Arrangements have been made for periodical conferences of the senior inspectors, whose duty it will be to see that the rules approved by the Department are uniformly observed in their respective divisions. Other conferences will be held between the senior inspector and the district inspectors of each division. The general object of these conferences is to concert measures whereby full effect may be given to the provisions of the Code, and to these instructions, in such a way as to secure substantial uniformity of judgment and of practice throughout the divisions, without unduly interfering with the methods and with the personal responsibility of individual inspectors. Uniformity of standard will also be further secured by the proposed special training of all inspectors who may hereafter be appointed. If any complaint of real or apparent hardships should be laid before the Department, the case will be referred by their lordships to the senior inspector of the division for personal enquiry and report, wherever the facts alleged seem to justify such a reference."

Nothing could be more conclusive on that point.

While thus advocating uniformity, I do not argue that H.M. Inspectors should be debarred from allowing their minds to be influenced by the special circumstances of the school.

In Scotland, more than in England, there is a very great variety of inspected schools, because in the former country, whether we like it or not, the system is every year becoming more and more a national one.

The lower middle classes, and in some districts the middle classes as a whole, refuse to send their children to private schools, but demand that they should be educated in public schools for the support of which they pay a share of the general taxation, and a large proportion of the local rate. One consequence of this is to create a very considerable variety of schools, and an inspector would be something otherwise than a man if he looked with the same eyes on a school of children of the lowest class, and one where the scholars possess every home advantage.

The uniformity should extend not merely to the questions to be asked and the general procedure, but even to the time employed, and especially to the provision that scholars should not be kept longer under examination than is necessary.

Speaking of questions, those under Standard V., arithmetic, afford the most glaring instances of diversity. This is the standard in Scotland, by passing which, a child is exempted from further school attendance. The section in the Act says that the child shall satisfy the inspector that he has a "knowledge of elementary arithmetic." If there is diversity here, all comparisons of statistics are worse than useless, and injury may be done to parents and children, as well as to teachers. Permit me to give a few examples of questions set to children in Scotland within the past few years. The profession in the standard is Practice and Proportion. Keeping in mind that the Education Department expects the average child to pass Standard V. at eleven, what do you think of such questions as the following :—

"A room requires a carpet 19 yards, 1 foot, 6 inches long, when it is 35 inches wide, which is exchanged for one 45½ inches wide, costing £3 8*s.* 1½*d.* What is the price of the latter per yard?"

"A. owes B. 5 stones sugar at $3\frac{3}{4}d.$ per lb., 19 lb. 2 oz cheese at $10\frac{3}{4}d.$ per lb., $12\frac{1}{2}$ lbs. coffee at 1*s.* $10\frac{1}{2}d.$ per lb. B. owes A. $11\frac{1}{2}$ yards flannel at 1*s.* 1*d.* per yard, 2 webs of cloth containing $5\frac{1}{2}$ yards, the other (?) $28\frac{3}{4}$ yards at 7*d.* per yard, 20 yards tape at 8 yards for $7\frac{1}{2}d.$ Which pays money to the other, and how much to settle the account?"

"A quantity of metal is divided into 62 parts of one stone each, with 6 lbs. over. They use an incorrect 14 lbs. weight, and they get exactly 64 parts. What is wrong with the weight?"

On these questions I ask whether any person in authority will assert that this is what the average school child of eleven ought to be expected to do, or whether it is what the Legislature meant by a "knowledge of elementary arithmetic?"

Several specimens of even Standard IV., arithmetic, show an amount of what may be called perverse ingenuity in the way of making the questions as puzzling as possible. For instance—

"A lady spent in shopping £1 17*s.* $8\frac{1}{2}d.$, which was 2*s.* 1*d.* more than the half of what she had in her purse. What had she at first?"

"The four quarters of 1869 began as follows:—March 22, 1 hour 12 min. P.M.; June 21, 10 hours 4 min. A.M.; September 23, 28 min. A.M.; December 21, 3 hours 28 min. P.M. Find in days, hours, and minutes, the length of the spring, summer, and autumn of 1869."

These questions are supposed to be under Standard IV., which prescribes the compound rules (money), and reduction of common weights and measures. Is this part of the work which the Education Department expects the average child of ten or even eleven to be able to do?

Then as to geography and history, fancy a Standard VI. child being asked to "give the history of Great Britain from 1641 to 1644," or to tell what he knows of the regicides, and of Henrietta Maria; or to "give the general features of the European Isles, exclusive of the British Isles." With reference to this last question, one has to give

it up as a hopeless conundrum. He thinks of the islands in the Arctic and Atlantic Oceans, in the Mediterranean and Baltic seas, and fails to discern any general feature of them all except that being islands they are all surrounded by water. One would like to see the answer to such questions as these done by the proposer himself.

One more, and I pass on. Give the names of the glens in Argyllshire, Perthshire, and Inverness-shire, with illustrations.

It is not for a moment asserted that such questions are common. It is a blot on the system that they should exist at all.

Passing on, as I fear my time is almost exhausted, I remark once more upon examinations that, so far as they are of individual scholars, they should not be more numerous than is absolutely necessary. Over-examination is a great evil. Not a few people think that that evil is increasing at a serious rate—that we are in fact approaching the time predicted by a noble lord, when "the world is going to become very disagreeable, for everybody seems intent on examining everybody else." Let me indicate two directions in which examinations—in the one case of scholars, in the other of teachers—might, in the opinion of many, be reduced—

(*a*) Is it desirable that every child should every year be individually examined by H.M. Inspector, with the result duly recorded?

There are clearly two stages at which individual examination is quite proper, indeed, necessary. One is the stage at which it is desired that a scholar be partially exempted from attendance at school, so that he may go to half-time labour—that is Standard III. in Scotland, and the Standard fixed by the bye-laws in England.

The other stage when individual examination is a necessity, is when the child claims entire exemption from school attendance and desires to enter the labour market; that is, for the most part, Standard V. But why it should be necessary to examine individually every child, as is at

present done in Standards I., II., and III., is somewhat of a mystery. Yet a very large part of school inspections, both in time and in labour, is taken up in the examination of those young scholars. The latest returns show that during the year 570,000 children were examined in England in Standard I., and 72,000 in Scotland; 415,000 in Standard II. in England, and 67,000 in Scotland; and 340,000 in Standard III. in England, and 63,000 in Scotland.

When it is remembered that every child's name is entered twice on the schedules, and the result stated opposite it, one can imagine the immense amount of labour that is involved. I think I am safe in saying that in no country at the present time, nor in this country at any past time, have so many children of those tender years been individually examined by so eminent men as many of H. M. Inspectors are.

But the question naturally arises, What is it all worth? Do you really gain anything by examining the 642,000 in Standard I. when, as it turns out, 160,000 slip through your fingers in a year's time, for only 482,000 are examined in Standard II., and by the time Standard III. is reached 79,000 more slip through your fingers, and only 403,000 are examined in that Standard.

It has been pressed upon the Education Department again and again that were individual examinations dropped in the earlier standards several desirable results would follow. There would be time saved for other parts of the inspection work. There would be some saving in clerical work, a most important consideration, for probably there are very few except those practically acquainted with it who have any idea of the amount of clerical work to the inspectors, to the teachers, and to the School Board which the inspection of a large school involves. Why, the duplicate schedules for these three standards alone pasted end to end would more than bridge the channel from Dover to Calais.

Such a change, viz., the dropping of individual examination in Standard I., and in course of time in Standard II., would be no revolutionary movement. The thing was

done some years ago in the case of children below seven, and there seems no administrative reason why it should not be gradually extended at least to eight and nine. If the examiner can only be sure that he will catch the examinee at ten there is little necessity for securing him at an earlier age. But if statistics go for anything, he catches more at seven than at any later stage. What we require is better attendance after the child has been got into school.

To sum up—at an expenditure of much time and money we over examine the younger children attending school, while we almost complacently ignore the perplexing and disheartening fact that of the children giving adequate attendance at the Standard I. stage 25 per cent. fail to appear at Standard II., and 40 per cent. at Standard III.

(*b*) Is there not similar room for diminishing the examinations of those who go through the course of study to teach in inspected schools?

Why should the pupil-teacher in his four years' course be examined, as he is still in Scotland, before admission, and also every year during his course?

Would not an entrance, a middle, and an exit examination be amply sufficient? Then why should he, in addition to being examined say in May of any given year for the fourth year's work, be examined again in July of the same year on the same subjects for admission into the Training College. Lest there be any doubt on that point here is what Article 92 of the Code says regarding the Admission Examination. "The examination extends to the subjects required in the course of a pupil-teacher's engagement."

Then, when he gets into the Training College, in addition to periodical Class Examinations, he has an examination of a week's length at the end of each year. If, as is the case in Scotland, he also attends University classes, he has the corresponding examinations. Add to that that the Training College authorities examine him in Religious Knowledge, and the Science and Art Department examine him in Science and Drawing, and you can scarcely fail to

come to the conclusion that in his six years' course of training the future teacher is about the most examined man going; that, in fact, by the almost incessant process of pumping him out, he may have very little left at the end of his course beyond what he had at the beginning.

DISCUSSION.

Dr. WORMELL (Head Master of the City Middle Class School) said he should like to make a few remarks on the interesting and comprehensive address of Mr. Fitch. It was well known that Mr. Fitch was one of their model inspectors. He brought to his work a keen sympathy with the teachers, and an appreciation of the difficulties under which they laboured. He had all that tact and experience combined with kindliness of manner and disposition, and a variety of other qualities that go to make a perfect inspector. When Mr. Fitch spoke of his work, one felt one would like to read from his pen the autobiography of one of Her Majesty's Inspectors, but in his paper he passed over the work of inspection of elementary schools very speedily, and with very few words, and he thought rightly so. The machinery for inspection and examination of elementary schools was not yet perfect, but was, or ought to be, on the way to becoming so. It was surrounded by many influences that tended to improve it. There was a large number watching it to defend it. There was a still larger number who were jealously watching it, in order to find out defects in it, and this number, which included the army of elementary teachers and school managers had vigour and courage enough to cry out lustily if they saw anything wrong in it. They might then very well leave the inspection of elementary schools to go on its way to perfection. But Mr. Fitch had introduced the very important principle of inspection of Secondary Schools. That seemed to him a principle which went far beyond the

slight question of the absurdities and defects of particular questions in a particular examination described by the reader of the second paper. Ought the general examination of Secondary Schools to be directed by the Government or by the Universities? The University of London and some other institutions had devised schemes for the inspection of schools; but such schemes could never satisfactorily supply what was wanted. In the first place, no University was prepared to devote funds to the purpose, and whenever the Universities proposed a scheme, they left the schools to pay the whole cost. The matter of expense alone was sufficient to prevent the University of London scheme being widely used. There was another reason why a University could not organise a thoroughly satisfactory scheme for the inspection of schools. A University scheme could never have the conditions for natural improvement and development, which he had described in connection with elementary schools. If an incapable examiner came from the University, the schoolmaster might shake his head at him, and have a certain amount of contempt for him; but his reverence for the University would prevent him saying anything disrespectful to the examiner sent down by the University. There would not be the same restraint with one of Her Majesty's Inspectors. The point which struck him as of most importance next to the matter of expense, was the possession of freedom by the teacher to criticise the action of the inspector, and to complain of the examiner when he proved to be without tact or experience. The matter of expense was so serious that it was almost impossible to have a large public school examined properly at the present day. With regard to the other point, they must excuse him for a moment if he referred to his own experience for an illustration. The governing body of his own school looked to him annually to recommend to them an examiner. When the examiner proved a failure, as was not unfrequently the case, when he was chosen simply because of his standing at the University, the blame fell

only on the teacher who had selected him. More than once, however, he had had the very great privilege and encouragement of being examined and inspected by Mr. Fitch. If there were more inspectors of elementary schools like Mr. Fitch, it was a pity they could not be made more available for the inspection of higher schools? Why should the elementary schools have the monopoly of this professional ability? He felt, therefore, that it was very important that this system of Government inspection and examination of Secondary Schools should be established. He was quite alive to the dangers of a Government system in this matter. When they went beyond the Elementary Schools they must divide the subjects and instruments of education at their disposal amongst different schools, and they must have schools with very different curricula of exactly the same grade—schools equally distant from the Elementary School on the one side, and from the University on the other—and these differences must be recognised in the examination system. But he thought they had gone beyond the time when they need fear that the system of government examination would ignore these differences, and endeavour to examine all our schools on the same plan. They had passed by the time when it was thought they could have a classical school with a modern side, and have the two departments going on with exact equality. They now knew if a classical school had a modern side, that the modern side would not, by a very long way, be treated on a par with the classical side. On the other hand, it was almost as impossible to have a modern school in which classical studies could hold their own against modern influences, such as the demands of modern languages, science, and other things. These things were now so well known that they need not fear that the examination system, if taken up by the Government and applied to Secondary Schools, would endeavour to make all our schools alike. There was only one other point he wished to mention. Mr. Fitch spoke of the liberty of the governing bodies. There was something

more sacred to his mind than the liberty of governing bodies, and that was the liberty of the intelligent parent, who wanted to know what our schools were, and to what extent they succeeded in fitting their pupils for the work of life; and it was for the purpose of supplying the intelligent parent with necessary information that he wished to see the Government offering facilities for the examination and the inspection of Middle and Higher Schools.

The Rev. Dr. HIRON (one of the Visiting Examiners and School Inspectors of the College of Preceptors) said he did not hear the whole of the paper by Mr. Fitch, but it so happened that he heard the last part of it. He had for many years acted as one of the Visiting Examiners and School Inspectors of the College of Preceptors, and the paper was an exceedingly interesting one to him. He had been engaged during those years in going into different parts of the country to inspect and examine such schools as invited examination from the College of Preceptors, and in making reports to the Dean of the state in which he found those schools. At the beginning of his experience, when he went to schools, especially in agricultural districts, he had to say, perhaps, "Your writing is not so good as I should like to see it, or the reading is not quite up to the mark." The answer he received was, "Oh! we have no time to give to these things; the time is taken up by more important subjects." Of course these were the schools that met with the animadversion of the examiner, and he found out when he had been once or twice to the same school and had reported upon it that there was very soon a great improvement in the quality of the writing and reading. When he spoke of these matters he spoke of them as typical subjects that were easily capable of improvement, and of which it was said it was impossible to improve them. At one such school some four or five years ago his comment had to be of a somewhat severe kind. Last year he was at the school—he would not mention names—and this was his report:—"—— School is a good example of a revived country grammar school in a purely agricultural district.

The number of boys is not large, not quite so large as it has been on some previous occasions; but in an agricultural district not very thickly populated, and in a period of depression, it has maintained its ground fairly well in that respect. It deserves to be full to overflowing. The boys are thoroughly well trained and taught throughout the school, and the evil of giving exclusive attention to a few picked boys, to the neglect of the rest, is entirely avoided. The highest boys receive, indeed, as their age and the number of the subjects studied require, ample time and attention from the head master. But the junior boys could not have done so well in this examination, if they had not been as carefully looked after as their age and the smaller number of subjects within their range admitted and acquired. I must mark with special approval the care, and indeed the skill, with which the simpler subjects are taught. No boy is likely to leave —— School unable to read, write, and spell well. The new scheme requires that the school should be periodically inspected by an examiner appointed by some examining body unconnected with the management of the school. This is the fifth time that the duty of thus examining —— School has been entrusted to me by the College of Preceptors, and I am glad to be able to report that the school is in a satisfactory state." Five years before, as he had said, he had to animadvert upon the writing and reading. That was the result of an annual school inspection conducted from year to year. The master received his animadversions with very great kindness, and his attention was directed in a friendly and kindly way to the weak points which needed strengthening. An examination was in this case, therefore, he maintained, a necessity, and if it had not been his own examination he should venture to say it had been of some value. That school was a typical school. It was not only a school in one particular place. He was speaking mainly of endowed schools, and they were all over the country, and he could say that the result of his experience was that he thought there was

a necessity for supplementing the Act of 1869. New schemes, without some supervision, might be only worth so much waste paper and no more. Now, what body was to keep those schools up to the mark? They had new schemes. Who was to see that they worked properly? Some school managers were unable or unwilling to see that a school was in a proper condition. Then he said what body was to do it? He ventured to say that they would never at present get any particular persons to agree that the State should do it directly as in the case of elementary schools. But was there no intermediate course; was there nothing between the two systems? He suggested this. There were a number of bodies which were capable of undertaking the matter. There were the Universities and the College of Preceptors. There were the Universities in Scotland. In Ireland there was the Board of Intermediate Education and the University of Trinity College, Dublin. There were also, at present, the Queen's Colleges. If the State went no farther than this under its new Minister of Education, if they were to have one, he thought everybody would agree that it might require endowed, if not private, schools to be examined once a year by one of those bodies without fettering their choice. The Reports should be sent to the Education Department and there considered. If in two successive years a school had a bad Report, then the Department should require another examiner to be sent to the school from another examining body; and then if they had another bad report decisive steps should be taken. He ventured to say that was a practical suggestion. At any rate he made the suggestion for what it was worth, and he was much obliged to them for listening to him.

The CHAIRMAN (Sir T. Brassey) said they had now only fifty minutes left to them in which this discussion could be carried on, and there were still seven persons who wished to speak. He would therefore venture, by an act of despotism on his own part, to establish a five minutes' rule, and ask speakers to confine themselves within the space of five minutes.

Mr. SONNENSCHEIN said, that having had his ten minutes cut down to five minutes, he should barely be able to say one quarter of what he had to say. Even then he would have only said half what he wished. He could only, therefore, indicate a few of the points in Mr. Fitch's paper, and in some of the other papers in the time left him, on which he should like a little further enlightenment. Mr. Fitch said, among other things, that students should be kept aware in the early part of their study that they would be expected to remember and reproduce at the end of the year what they had learnt at the beginning; they would thus be forced to think the matter out more thoroughly, and if the question of rewards, &c., were kept out of view, feverish excitement would be avoided, and other benefits would flow from it. That position was disputed by many. It was disputed very warmly by his friend, the late Mark Pattison. Mr. Fitch said: "Let the awards which depend upon the examination be kept from the pupil—be kept away from him." But Mr. Fitch had not told us how they were to be kept away from him. Lord Sherbrooke, when he was still Mr. Robert Lowe, had made several similes like that quoted by Mr. Fitch. He compared teachers' work to shoemakers' work, and said "no boots no pay." On another occasion he compared teachers' work to a man auditing his own accounts. He said these were the material comparisons, the material tests applied to spiritual work, and in every sense that had been the ruin of all our educational matters. Had Lord Sherbrooke been different from the beginning, the whole code would have been different, and it would not have created such an outcry as there had been against it. Mr. Fitch said that the State was not to set up an ideal. That again was disputed, and he (the speaker) ventured to read to the meeting from the French code to show that the State in France did set up an ideal. There was a high ideal set up before the teacher, but for all that the teachers' hands were left free.

The speaker then read from the French Code:—

"Pour l'ordre à suivre dans les leçons, on essayera de combiner, toutes les fois qu'on le pourra, en les rattachant à un même objet, la leçon de choses, le dessin, la leçon morale, les jeux et les chants, de manière que l'unité d'impression de ces diverses formes d'enseignement laisse une trace plus durable dans l'esprit et le cœur des enfants. On s'efforcera de régler, autant que possible, l'ordre des leçons par l'ordre des saisons, afin que la nature même fournisse les objets de ces leçons et que l'enfant contracte ainsi l'habitude d'observer, de comparer et de juger. Pour guider la maîtresse dans le choix des sujets de leçons, d'après les règles qui précèdent, on a ajouté dans un programme plus détaillé un exemple de répartition des matières mois par mois."

Then followed a long list of suggestions for a guide, and not as a rule for the teacher. That was the French way of setting up an ideal. Our Department shrinks from doing so and yet does it. If he was told to go anywhere, and to go by any route he liked, but was told to call at certain public-houses on the way, there was no freedom left him—a method was prescribed, an ideal was set up. They were told, and he rejoiced in the thought, that if the secondary schools got to be inspected the executive would have no standards. He was delighted that they were to have no standards, but how were they to judge of the work? Mr. Fitch spoke of appointing a supervisor. His (Mr. Sonnenschein's) question was who shall supervise the supervisor? As to questions that were asked of children, he might give the following instance. An inspector gave the following question to 1, 2, 3, and 4th standards combined. The question was forwarded to him, and he was asked if it was a fair question. He gave the question to one of H.M. Inspectors—he failed to do it; he then gave it to a master of a Board school, and he succeeded after twenty-four hours, and he had the other day to examine a class of men, and he gave it to them as the last question on the paper, and they all left it untouched. He would tell them what the question was, and

it was given as a test of intelligence of children in the fourth and lower standard. The question was, "I bought 100 yards for £128, and sold them so as to lose the selling price of 12 yards. What was the selling price?" That was given to children as a test of intelligence.

Miss FLORA STEVENSON (Member of the Edinburgh School Board) said it was with extreme diffidence she had to ask leave to take part in the discussion. During the time she had been a member of the Board she had become increasingly convinced of the importance of two of the points referred to in Mr. Fitch's paper, and in Mr. Kennedy's paper. The first of these was the very great difficulty there seemed to be to dissociate from the minds of teachers and school-managers, the idea that the sole object of the inspector of elementary schools, was to test the result of the work by the money earned. She believed that there was nothing which tended to make the work more mechanical, and she thought if anything could be done to disabuse the minds of school teachers and managers of the idea that this was the only object of the Department in examining the schools, it would be an enormous advantage to our educational system. According to Mr. Kennedy, his experience seemed to be that inspectors went into detail in their criticisms of the work of the schools in Glasgow. Unfortunately some of the inspectors did not deal so frankly with them in their Edinburgh schools, and they were very often at a loss to reconcile the report of the school with the amount of money granted. Over and over again the report began: "The order and discipline in this school is excellent, except in one or two points," and they never told them what those were. Another point to which she would refer, and she thought it was a more important one, was the extreme desirability that children of very tender years should be exempted from individual examination.

Miss COOPER (Edgbaston High School for Girls) said it seemed to her in their discussion they were wandering a little away from the point of view of the Secondary or Higher Schools in the country, which was the view of the

question that morning. She apprehended Mr. Fitch in his paper did not wish to point to what could be done in the matter of teaching in Elementary Schools, but how far the Government of the State ought to interfere with, and regulate the inspection of Higher Schools. Now, as a practical schoolmistress, on this point she had formed very decided views, and she spoke more decidedly because of the absence of one whom all the Schoolmistresses of Higher Schools looked up to on account of her great experience and large mindedness—she meant Miss Buss—who on this point, she thought she might say, held the views she should give as nearly as possible. First of all, she should like to say she thought Mr. Fitch did not make sufficient point of work that was being done by the Oxford and Cambridge Board examination. It was an examination not yet largely taken up by girls' schools. She thought it was an excellent scheme. It was the best she knew of for inspection and examination, and in practice she found it worked well. Schools were examined and inspected, and a great many schools, and especially girls' schools had been taken under that Board. She was very doubtful whether a State Department could give them more efficient inspection than such a Board could. Could they really avoid uniformity or a certain setting up of standards under such a Department. There were two kinds of standards, those which were expressed in codes, written and understood by everybody, and those which were not so written, but which were by the Government Department understood to be and practically were codes for schools which were in any way inspected by the Department. She was much more afraid of the subtle working of the unexpressed official idea, than that the Education Department should put such an idea before them in the beginning. Dr. Wormell, no doubt, touched upon one of the great difficulties when he spoke of the cost of inspection of schools. But she contended that in the matter of Endowed Schools, there ought not to be any real difficulty. The endowment existed. Why should not the

efficient examination and inspection of the schools be recognised as a most useful part of the school machinery. The real difficulty lay with the proprietary and private schools. The matter of private schools was too large for her to enter into, but with regard to proprietary schools she should like to say this. Most of those which existed, existed for the well-to-do classes of the community, and she was very reluctant to ask for any State money for such schools. Let the fees of such schools be so arranged, that the governing body could afford to pay for the examination and the inspection of such schools. Then, as to the proposed Ministry of Education. If the new Minister of Education were always to be an educational enthusiast, with sufficiently wide powers, then, perhaps, they would look with less jealousy on the interference of a State Department in our Secondary Schools; but they had not always a Mr. Mundella to look after the education of the country; and there always would be connected with the Ministry a permanent official staff. She would be much better pleased if the aim of the new Education Department should be to offer facilities to examine rather than to compel any school above the secondary grade to undergo an examination. She was sorry she had no time to speak on some other points.

Mr. A. BOURNE said he wished to utter a protest as strong and as earnest as he could make it, against what seemed to him the tendency of the present mode of looking at education, as exemplified very largely in Mr. Kennedy's paper, and in the speech of the lady from Edinburgh. The theory at present is that the Government helps those who are engaged in education. To have the inspectors give the full reports some seemed to desire, and point out exactly what is to be done, and exactly what is not to be done, would be to put the education of the children in the hands of the Government of the country; and whatever was the case in France or other countries, he did hope the time would never come in England in which they were to be taught according to a Government

programme. He wished that some who were engaged in the educational work of the country would spend the energy which was spent in denouncing the code, and pointing out and ridiculing the occasional mistakes of certain inspectors—he wished that energy could be devoted to bringing home to the School Boards and the Committees of Managers of Schools everywhere, this truth :—"You are the people who are responsible for the right education of these children, and you must see they are educated properly, suitably to their position, suitably to their neighbourhood, and no inspector can relieve you of the responsibility." An inspector may come in and say, "You are doing the work well, we will recommend the Government to give you a grant in aid ;" but an inspector ought not to come in and take away the responsibility from the managers of the school. His own opinion was, it would be a very sad day for England if they had such inspection as that. What he longed for was the time when intelligent and generous local school managers would be able to carry on their schools with a greater amount of freedom described by Mr. Sonnenschein and others, according to the character of the neighbourhood, and so as to secure the greatest benefit for those particular children. If the State could give them money to help them very well, and if not they would do without it sooner than sacrifice freedom and adaptation.

The Rev. HENRY ROE said the time was very short, and one must save as much as possible. He must first earnestly protest against holding up to public ridicule some of the questions in these examination papers. He had been a public examiner and teacher, and he knew both sides of the question, and he was perfectly sure there was no good to be gained from such a course. As to the question put here about 100 yards bought for £128, and sold to lose the selling price of 8 yards, and what was the selling price, anyone who thought knew how it had to be done, and it need not take twenty-four hours, nor even

twenty-four seconds. He came into this room thinking the question was one of secondary education. What they wanted was to be able to give the parent a guarantee, first, that the teachers in whose school the children were being educated were able to teach. They wanted to give a guarantee, secondly, that what they professed to teach, was taught. They wanted some means of helping up a backward scholar, urging on those who were lazy, and in cases of wayward teachers, to bring them within a certain prescribed curriculum. They wanted an examination of teachers, and individual examination of pupils, and downright inspection above all. At present somebody might examine, but that somebody might be anybody; and as for anything like the same standard of examination applying to school A, B, C, and so on, there was nothing of the kind. They had their University local examinations, but they only took the cream after all; and although it might be said the influence of the examination went downwards, he thought there was as much loss as gain in the way of doing so. Many masters and mistresses would be tempted to spend a little extra time over those who were going in for examination, and leave the others to do as they liked. They wanted an examination through the whole school, and until they got that, they would not succeed. It could not be done under the present system. They had crowds of little schools, and they were the ones that wanted inspection and examination most, and they were the ones unfortunately also that could not afford to pay for it. What must we do? He said let the State not do it all, but give some facilities—let the State give us some facilities for examining our teachers and our Secondary Schools, so that both might reach the minimum of this or that standard. The State really ought to do it, and he should say at once let them begin.

The Rev. Dr. CROMBIE (St. Andrew's University) said that anything he should say would be simply in the form of propositions, and those propositions must commend themselves

to their judgment or the reverse accordingly as they thought. First, he begged to thank Mr. Fitch for the admirable paper he had read to them. The experienced educationalist and the judicial mind spoke in every sentence of that paper. Everything Mr. Fitch said must command the respectful attention of all interested in education, and he took this opportunity of thanking him—in the name of many who, like himself, took an interest in education—for those admirable lectures on education he had lately published. There was only one point in the paper on which he wished to make any remark, and that was the method of examining secondary schools. Mr. Fitch did full justice to the examination system in the ordinary sense of the term, but he also pointed out that that was not enough. There must be inspection in the higher sense of the word as well as examination. Now—he spoke especially with reference to Scotland—their secondary schools had been examined mainly from the University. But the question arose, which of the bodies, the State or the University, could best discharge the work of examining and inspecting the secondary schools? He thought the University was the proper body, and by the University he meant the professors in the Faculties of Arts and Science, to which he did *not* belong. There was a natural connection between the secondary school and the University, and a large number of the pupils in secondary schools passed through the University. It did not matter very much after all whether this work of inspection was done solely by professors in the University properly qualified for the purpose, or by qualified school inspectors, for he admitted they might have men in the Universities who would not make the best inspectors. He individually preferred the one to the other, but he was not so wedded to one system that he should refuse to accept the other if it was satisfactorily arranged. One objection to the State system was that it would cost a large sum of money, and the Scotch were not a very rich people, and, as Sydney Smith said, "we still cultivate literature on a little oatmeal." They could

therefore utilise the professors who had their own incomes as an inspecting body. He thought Universities possessed also certain advantages, not merely as examining bodies, but as inspecting bodies. They had in Scotland some well known men who with others would make a very good inspecting body. A single word with regard to Mr. Browne's paper on local examinations. He should like to say something with regard to that as it took no notice whatever of their system of local examinations in Scotland. There were two great defects in their local examination system. No school was *compelled* to send up its pupils; and secondly, only selected pupils of many schools were sent up; and thirdly, the elementary schools competed on most unfavourable terms with other schools. Many could not compete, for example, with such well equipped schools as the High School at Dundee. Some plan must be devised by which a distinction should be made between the pupils of the two classes of schools.

Mons. ADOLPHE STEEN (University of Copenhagen) said he should make only one introductory remark, and that was that the conference was an international one. That must be his excuse when he drew attention to his own country. In Denmark every child was compelled to have some education, especially in reading, writing and arithmetic; therefore they would never, or seldom, find anyone but who was in possession of those acquirements. Every school must be subjected to inspection, both elementary schools and higher schools. M. Steen then proceeded as follows: The superintendence of the elementary schools is in every commune in the country intrusted to a school commission, consisting of the clergyman of the parish as chairman, and two men chosen by the Local Board ("Sogneraad") for a period of three years. The duties incumbent upon the commission are to see that the rules regarding the term of teaching are adhered to, to be present at the examinations, see that all the children who are bound to attend the school do so, and give the Board lists of those who have been remiss in their attend-

ance, for which neglect they are fined. Besides the commission must superintend the distribution of the children in the different classes in the manner most satisfactory to the instruction, and propose to the Local Board lists of books, and school apparatus which it may be necessary to provide. Nothing with regard to the instruction and the masters can be finally arranged before the commission has had an opportunity of passing an opinion. If a Local Board will not agree to the proposal of a Commission, the difference may be settled by higher authorities. These authorities are first, the School Board, consisting of the "Amtmand" (the superior local officer), and the Dean, and in the last instance the Ministry authorised to deal with the matter under debate. The supervision in the provincial towns is similarly arranged, the Town Council here taking the place of the Local Board in county parishes. If there are several parish clergymen in the town, the commission is reinforced by a greater number of members chosen by the Town Council. In Copenhagen there are six public schools, in which but a very small sum is paid for each pupil; twelve public schools, where nothing is paid; these schools are all established by the Municipality and supported by city funds. Twelve schools, with free instruction, are supported by societies, the pupils paying a school fee of very different amount in the different schools. Besides, there are a great many private schools only supported by the payment of the pupils. All the schools are under the supervision of a School Director, nominated by the Municipal Council of the City of Copenhagen. This director arranges all that regards the teaching, through the head master (inspector) of the school. His superiors are, the Mayor of Copenhagen ("Overpresident"), one of the Aldermen ("Borgmester"), and the Archdeacon ("Stiftsprovst"). This shows, that the elementary schools are managed partly by the State and partly by the Municipality. The State takes the least conspicuous part in the lower order of schools in the country and the country towns, viz., only through the clerical members of the commission, and in Copenhagen

the State takes no part at all in this stage of management. But in the higher stages the Government part is more prominent, the secular authorities also taking their share in the settlement of questions of consequence. The final settlement of momentous questions is submitted to the Ministry, which has decisive authority. The grammar and middle-class schools (Realskoler) are solely under the supervision of the State. The University has no direct part in this, but indirectly a few professors of the University have some influence through the Board of Inspectors nominated by the church and school department for the grammar and middle-class schools. This Board of Inspectors consists of three men versed in the art of teaching. At the present moment they happen all three to be professors of the University. It is incumbent upon them now and then to attend during the hours of instruction in all private as well as public schools, which are entitled to hold final examinations, either for young men intending to pursue their studies at the University, or for those who, not having studied the classics, wish to embrace a practical profession in life. The inspectors are bound to give their opinion upon every question regarding the teaching, which may be put to them by the Ministry. They fix the term of the annual examinations, and send censors to the schools, who assist the masters in giving the marks to the answered questions. The inspectors take a principal part in the censorship. The censors are selected from among men who either are, or have been, masters in schools, and only if such are found among the professors of the University can they be called upon in this capacity. The inspectors endeavour, to as great an extent as possible, to employ the masters of schools as censors at the examinations at other schools. This has proved to be of no small consequence; because the school-masters in smaller towns, without much intercourse with educated men, and without being influenced by able colleagues versed in the same sciences, will not easily improve, but their manner of teaching becomes mechanical and dull.

Mr. ROWLAND HAMILTON desired to add one word only as a protest against the view that the State had no high idea of education, because it did not charge the Executive Government with carrying out the details of school management, but confined its function to periodical inspection and examination. He must repeat that one most essential part of the work of primary school was to teach the necessary rudiments to dull and backward children, or to those whose surroundings were too often wholly of an illiterate kind. The system of examination was designed to enforce this principle, and give due honour and prominence to this special work. He as a Scotchman was proud of the high standard which had for so long been kept up in Scottish schools, but the Act of 1872 was required to remedy the shortcoming which left far too many wholly untaught. If he understood Mr. Kennedy rightly to say that 40 per cent. "slipped away" between the first and second standards, and never arrived at the third; that defect had not yet been remedied.*

* This point is of so much importance that I beg leave to append the result of an examination of the annual returns made by the Education Department.

Taking first the figures for *England and Wales* for the year ending August, 31, 1883, I find the numbers presented for examination to be—Standard I. 603,000; Standard II. 537,000; Standard III. 474,000, which shows a falling off of 11 and 20 per cent. only for one and two years respectively. But this mode of taking the numbers is obviously misleading, for by it are included not only the increase of population, which tells largely on the earlier ages, but also that which is due to better school attendance. The 549,000 shown in 1881 in Standard I. far more fairly corresponds to 506,000 in 1882, Standard II. (—7¾ per cent.), and to 474,000 in 1883, Standard III., a decrease, since 1881, of 13⅔ per cent. This is not satisfactory, as it is in a great measure accounted for by the fact that the numbers in the higher standards are far too much reduced by failure to pass through the lower. But this is very different from children "slipping away" to the extent of 20 and 40 per cent. during the first two stages of their school course. A marked improvement is shown in the next succeeding years, 570,000 in Standard I. in 1882, appearing as 537,000 in Standard II. in 1883, or a falling off of 5 per cent. only.

The indications given by the returns from *Scotland* are far better. 69,000 are in Standard I. in 1881, and 65,000 in Standard III. in 1883,

Mr. KENNEDY said his statistics referred both to England and Scotland, and if they were taken separately, he did not think they (the Scotch) were the worse of the two.

The CHAIRMAN (Sir Thomas Brassey): I think the time has arrived for closing the discussion, and I am told you will consider I have not fully discharged my duty as Chairman if I close the meeting without saying a word or two. The first observation which I have to make is one which it is a great pleasure to make, and which, I am sure, you will all most warmly concur in, and that is to speak in terms of the highest praise and appreciation of the papers which have been read to us this morning. They were powerful papers, and they managed to bind in a very happy manner amusing illustrations with inculcations of soundly philosophical principles. The speeches have been of the most interesting character, and I can assure you that the task which was incumbent upon the Chair to interrupt Mr. Sonnenschein, Miss Cooper, and others, was really a painful task, and, I am sure, tended to deprive this meeting and the public outside of information and suggestions of a valuable character. I may say a word or two on the subject matter with which we have been attempting to deal this morning. Two points have been clearly proved. First, the necessity of the examination of public schools; secondly, the difficulty of carrying out these examinations in a satisfactory manner. I am sure we must feel that was true which is so well put by Mr. Fitch, that this task of examination and inspection could not be undertaken by the teachers themselves. Their horizon is not sufficiently wide perhaps, and certainly the affection for their own pupils must be such as to make them not altogether impartial critics of the result of the work which they have themselves undertaken. When we are in

a diminution of less than 6 per cent. in two years. The natural death-rate accounts for about a moiety of this. There is no reason to suppose that any class of children are slipping away from Scottish schools. (*Note by Mr. Rowland Hamilton.*)

a difficulty in dealing with a great public question, there is naturally a disposition to turn to the State for assistance. I know that great writers distrust the State in many of its functions. I know very well how powerfully Mr. Herbert Spencer has, amongst others, argued against calling in the assistance of the State. I happen to be connected with a Department of the State which has been especially criticised by Mr. Herbert Spencer. Mr. Herbert Spencer contrasts not very favourably the aspect of a Government dock-yard with the aspect of a private manufactory. Well, I concur with Mr. Herbert Spencer in his criticism of the State as a manufacturer and as a merchant. In these capacities no doubt the State compares unfavourably with the private individual and with private enterprise, but I think in other respects the State will bear more easily a comparison with private enterprise. The State may be relied upon to do good in stimulating the public education of the country. Well, the question is how far you are justified in bringing in this useful agency of the State in conducting the examination of our schools, and it is clear that the State cannot enforce its interference excepting under certain conditions. By a wise policy the elementary education of the country has been assisted, and liberally assisted by Imperial grants, and where those Imperial grants are given it is self-evident that the State is justified in coming in and insisting upon conditions and standards under which these grants are made. The State may also come in and inspect and examine endowed schools. Endowed schools enjoy their property under the protection of the State. As a condition of that protection which the State gives them, the State may very well claim to see that the work is done, and done properly. Well, we have done something to improve the endowed schools of the country. It has been pointed out by the writers of the papers that these schools have been reconstituted in a satisfactory manner under the recent Act of the Legislature; but the State did not reserve the power it should have held to examine those schools. I am glad to hear it is

in contemplation to strengthen the Endowed Schools Act of 1869, and to secure a more effectual guarantee for the efficiency of those endowed schools. As a member of the House of Commons I am glad to hear that good hopes are entertained of the results which will accrue from the recent report of the Select Committee of the House of Commons. I am not familiar with the terms of the report, but I understand that very considerable changes are expected to flow from the suggestions of this select committee. Among other things, it is anticipated that it is possible a Minister of Education may be appointed. Well, ladies and gentlemen, I quite concur in the policy of establishing a Ministry of Education, but I would point out to you this, that we have a good deal of what we want and of what we hope to have in a Minister of Education. This old country of ours does a great many good things in a rather crooked and tortuous way, and we have in Mr. Mundella, by whatever official name you may call him, a man who is doing a great deal of all that you may ever hope to get from any Minister of Education. Now I turn to another aspect of the question upon which I shall say a word or two. I thoroughly sympathise with the difficulty which is experienced by so many parents in making a satisfactory choice in one of these upper and middle schools in which the education of their children is to be conducted. I say it is most desirable that such schools should be tested, and it is most difficult to insist upon the imposition of a satisfactory test. There are schools which have been spoken of belonging to the category to which I refer, with which we are unable to deal. There are the seven great public schools. No doubt these seven great public schools are mainly voluntary schools, that is to say they are supported by the voluntary contributions of the parents. But they do possess a limited amount of income from endowments. The State taking advantage of the fact that they are, to a certain extent, endowed schools, has been able to interpose and greatly to strengthen the power of public opinion in requir-

ing proper efficiency in those schools. But there are other schools, infinitely more numerous, and educating a greater number of children, which we find it difficult to reach. I refer to those private schools which subsist entirely upon the voluntary contributions of the parents who send their children to those schools. I acknowledge we have great difficulty in proposing any public tests in the way of examination and inspection in the case of these schools, but I was glad to hear from those who have read the papers this morning, how effectual are the inducements which operate in bringing those who conduct these private schools to submit themselves to some kind of test. I think we ought to acknowledge most gratefully the signal services which have been rendered by the Universities and the College of Preceptors, in organising and establishing a means of examining and inspecting these schools. No doubt, as in the case of daily examinations by the Education Department, or in the middle class and private schools by the University, there are blots in the system. But all these defects can be remedied. In conclusion, we have, I think, agreed to recognise, as I have said in my opening remarks, the necessity for these examinations. At the same time we recognise that necessarily the system of examination itself leads more or less to overpressure. There is no doubt overpressure in all departments of human life. There certainly is a deplorable amount of overpressure in the House of Commons. It is idle to hope that you can deal with this question of overpressure by any legislation or by any fixed directions. The authority which is most competent to protect individuals from overpressure in consequence of examination, is an authority which ought never to be relieved of its responsibilities, and never can be relieved of its responsibilities, and that authority is the parental authority. You cannot by any organisation devised relieve parents and guardians, and friends, of the responsibility which they owe to the young people whom they are bringing up, we hope, to useful

careers, and if parents and guardians, and friends of children do their duty by them, I have no fear of bad results from overpressure.

Mr. PHILIP MAGNUS: I am sure you would be unwilling to leave this room without recording a very hearty vote of thanks to your Chairman. I think I may venture to say that Sir Thomas Brassey has presided at one of the most interesting and profitable discussions which has taken place at this Conference on Education. The last fifteen years have witnessed the development and improvement of our primary education, and a system of examination and inspection of schools has grown up with which we have reason to be satisfied; and I feel certain that in the next fifteen years we shall see an equally good system established for our secondary schools. The learned professor from abroad who addressed you, and whose paper you listened to with so much interest, showed that they manage these things better in Copenhagen. It is curious that the difficulties we find here do not seem to exist on the Continent, but the reason is, that in this country our system is invariably worked out by ourselves, while abroad it is worked out by the State. I think, however, we all prefer that it should be worked out by ourselves. It frequently happens that the best speech on an educational subject is made by a man whose particular profession does not bring him much in contact with the subject. If we want an example to illustrate this fact we shall find it in the address given by our able Chairman to-day, to whom we record our sincere thanks.

Mr. FITCH: I venture to second the resolution, because I feel you desire to offer in the strongest possible way your thanks to the Chairman. There is no happier circumstance in our public life than that our statesmen, however absorbed they may be in their special work, always show their interest in questions which mean the general national well-being in other ways; we have proof of that in Sir Thomas Brassey's presence here to-day.

The CHAIRMAN said he was very much obliged for his kind vote of thanks, but he must tell them that the Lords of the Admiralty had something to do with education. They had a large primary school for a thousand boys. They had what might answer to the middle-class school, in the form of a superior establishment in the dockyard for young engineers for the navy, and the whole was crowned by their grand University at Greenwich, through which every naval officer had to pass before he received his commission.

(The section adjourned until 2 P.M.)

In the afternoon Mr. FITCH occupied the chair.

INSPECTION AND EXAMINATION OF SCHOOLS BY OTHER PUBLIC BODIES THAN THE UNIVERSITIES.

By the Rev. H. L. THOMPSON,

Rector of Iron Acton, late Censor of Christ Church, Oxford.

I DO not propose to describe or commend the admirable work in connection with secondary education which is performed by other public bodies besides the Universities of Oxford and Cambridge ; by such bodies, I mean, as the London University, the College of Preceptors, the Royal College of Music, and the Science and Art Department at South Kensington. I desire rather to call the attention of this Conference to the extremely small influence exercised by all existing agencies upon the middle class education of the country. It is scarcely an exaggeration to say, that while the primary education of England is thoroughly superintended, and the public and other first grade schools are subject to strict, though voluntary, periodical examina-

tion, the middle class schools are for the most part left entirely to themselves ; no guarantee of efficiency is required of the teachers ; no public or other test is applied to the bulk of the instruction given.

But first : the phrase " middle class schools " is an extremely vague phrase. The classification which it implies is quite indefinite. The schools included under it cannot be grouped according to the age at which the scholars leave them, or according to the subjects taught, or the annual fee charged. If one reckons up—as I have done—the middle class schools of a single county, it will be found that they embrace very various and heterogeneous establishments, which are roughly classed together under this title, because they do not come under the first grade schools on the one hand, or under the elementary schools on the other. But in this wide class must be placed the well-endowed grammar schools, where the children of the professional classes, of clergymen, artists, lawyers, and medical men, mix with the children of the wealthier farmers and tradesmen. These schools are ambitious ; they send occasional scholars to compete for university distinctions, although compelled by the law of their existence to provide chiefly for those who will at an earlier age pass into business or trade. In the same class will be included the many private adventure schools, for boarders or day scholars ; schools of very various merit, but all, whether prosperous or unsuccessful, greatly dependent upon the caprice of parents, whose wants and fancies must be respected. Girls' schools will also be included in the list ; girls' schools innumerable, to be found in the suburbs of every city, in the street of every small market town ; and perhaps the lowest depth of middle class education is reached in the small and impoverished girls' school, where the daughters of the poorer farmers and tradesmen receive their only education. The boys of this rank are usually far better taught, because they are sent to the public elementary school, or else to the local grammar school, presumably conducted by fairly competent teachers ; but for the girls a less rough and more select training is sought ; some know-

ledge of the piano, of fancy work, of dancing, is wished for ; and while the parents are seldom competent judges of the instruction imparted, few persons are too incompetent to undertake to impart it. And the education, bad in its methods, and poor in its quality, is never guided or tested by any system of examination.

I need scarcely say that many efforts have been made, during the last thirty years, to improve middle class education ; not only by the careful re-modelling of ancient endowments, especially in towns, but by the establishment of high schools, under very competent instructors, and of schools fashioned upon the Hurstpierpoint model, which mark an epoch in secondary education. Much good also has been done by the certification of teachers, and by the various systems of examination. But in spite of all that has been done, the middle class education of the country is still, in a very large measure, uncontrolled and unguided. There is still, in every part of the country, a great number of private schools, as well as small and struggling endowed schools, of the efficiency of which no test whatever is provided.

Selected pupils can be entered for examination before many bodies. And perhaps the efficiency of the instruction imparted at a school cannot be at present better estimated than by the success which attends trials of this kind, by the number and variety of the certificates gained in the course of a few years. But I need not point out that the successes of selected pupils do not test the character of the teaching of a school as a whole. They show that diligent attention has been paid to the promising pupils ; they tell nothing whatever about the instruction imparted, and the labour given to the dull and backward scholars, of whom every school necessarily contains a good many. To find out this a school must be examined from top to bottom, by a competent examiner ; for which purpose very little machinery as yet exists, or at least machinery that can be readily used.

The local examination delegacies, and other public bodies, do indeed offer an examination, which is well within the reach of the larger and wealthier schools. But the system

is too costly for the smaller schools, although they, above all others, would benefit by it. Parents do not like to be charged the expense of a really good examination, and the authorities of schools are unwilling to add to the school bill any item which can be excluded. Terminal charges must be made as small as possible. Schools compete against one another; and the margin of profit is made very narrow; and however useful an effective examination is admitted to be, it cannot be had, if it costs much money.

Moreover, the teachers of middle class schools desire an examination which shall be conducted by those who are familiar with their work, with the methods employed, the standards aimed at, and the special difficulties encountered, and they are inclined to distrust University examiners, as deficient in these qualifications. It is the higher and not the average work of a middle class school that is reached and helped by the local examinations. Examiners of a somewhat different class are wanted, if the confidence of the school authorities is to be secured.

It is found also that the parents of pupils in schools of this kind are apt to demand, if they require any test of their children's progress, some very definite evidence of the work of each year, such as that which is afforded in the different *standards* of the elementary school. They are conscious of their own incompetence to estimate the progress of their children. They are unfamiliar with the subjects studied, or have forgotten what they once learnt. They wish, therefore, to have a clear report, at the end of each school year, which will show that their child, who was in such a standard a year ago, has now passed into the next; and one of the chief objections to existing systems of examination is, that this obvious evidence of a pupil's work and a master's efficiency is not provided. The more vague and general report upon the work of a school, however carefully drawn up, does not answer the same purpose.

These remarks would seem to point to the conclusion that for bringing under effective control the middle class education of the country, some system of public inspection

is required, regulated by a code, and providing for definite standards of attainment, to be measured by periodical examinations. Such a system should be carried out by inspectors familiar with middle class education, and yet able to raise and improve it wherever possible; and it should not be costly, or it would unduly tax the resources of schools. Whether the State would ever undertake this important task is more than doubtful, and without a duly authorised code, it would be scarcely possible to establish the same standard of proficiency throughout the country, or even throughout a single district. Moreover, a difficulty would have to be met which in the case of elementary schools does not exist. The visit of the Government inspector is fixed for any month of the year which he may select. It bears no relation to the end of the school term, or to the annual distribution of prizes. But the authorities of a middle class school desire to have the annual examination just before the summer or winter holidays, so that the prize giving may crown the work of the year, as is the case with first grade schools. It is obvious that if this arrangement were to be carried out, a very large number of examiners would be required.

Meanwhile, the problem has to be solved as best it can, how to test, guide, and stimulate the middle class schools which abound throughout England, and especially the private adventure schools, which still educate a very large number of the children, both boys and girls, of farmers and tradesmen, and yet are subject to no control, and are very lightly influenced by healthy public opinion. We want to encourage them to be examined; to guide them by examination, and gradually to eliminate the least efficient of them.

May I be allowed to give a short account of an attempt now being made in Gloucestershire to accomplish this object?

Between two and three years ago an enquiry was made into the number and the character of the secondary schools in Gloucestershire. The county was found to contain from forty to fifty boys' schools, and about the same number of

girls' schools. These figures do not include the city and neighbourhood of Bristol, which possesses very large endowments for secondary education, and has a very large number (certainly more than a hundred) of private adventure schools, which are frequented by day pupils, and by boarders from the country districts round. Of the boys' schools (excluding those in Bristol), twelve had endowments, but only three out of the twelve could be described as fairly prosperous.

It was felt that if the work of these schools was to be tested and guided, part of the expense of a good examination would have to be provided ; and a County Meeting was held, under the presidency of the Lord Lieutenant, and a subscription and guarantee fund was established, for three years, in order that the experiment might be fairly tried. A committee was formed, and it was determined to act in connexion with the Oxford Local Examinations Delegacy, in order that the authority and prestige of the University might lend its support to the scheme. It was resolved to invite the schools throughout the county to undergo examination and inspection ; the cost being partly defrayed by a capitation fee to be paid by each school, and partly by the fund raised in the county. The amount of the capitation fee was to be determined in every case by the committee, who were to take into account the character and status of each school. The schools were to be at liberty to be examined in religious or in secular knowledge, or in both together ; but it was a necessary condition that all the pupils, and not only a selected number, should be presented for examination. The schools were to have full leave to publish the reports of the examiners, and the names of all schools examined were to be published every year. It was hoped that if this scheme were successful, it might be possible, not only to recommend to the favourable notice of parents the more efficient schools, but also to establish prizes or exhibitions as rewards for the pupils who earned distinction.

The system has just begun to work, and during the present year about twenty schools will be examined under

it. The capitation fee has been for the present fixed at half-a-crown for each pupil, and this sum the schools seem for the most part able to afford. The total cost of the examination will probably amount to four or five shillings for each scholar. We have been fortunate in securing the services of very competent examiners among the clergy of the diocese ; it is very difficult to find competent laymen, except at academical centres. All the examiners are approved by the Oxford Local Examinations Delegacy. The summer examinations have just come to an end, and all has gone on satisfactorily. There are, however, many difficulties in the way of carrying out such an experiment successfully ; among them are these : (1) that the system is not self-supporting ; (2) that it cannot pass the scholars through standards according to an accepted and authoritative code ; (3) that even the lowest capitation fee is beyond the resources of many schools, and of those schools especially which above all others require the ordeal of a careful examination and inspection. But in default of any better system, I think a fair beginning has been made.

It has been pointed out, that for any general system of examination and inspection, considerable funds are required. But the State is not likely to undertake such a burden ; and a County Subscription List is a temporary and precarious experiment. Nothing, however, has struck me more forcibly (in my enquiry into the schools of a single county) than the enormous waste of endowments which at present exists. I believe that there is no lack of money for providing efficient secondary education, together with a complete system of examination and inspection, if only the resources now existing were more wisely used. But in spite of all the admirable work of the Endowed Schools Commissioners, and of their successors, the Charity Commissioners, very large sums are still practically wasted in the maintenance of endowed schools in places where they can no longer do useful service. Of twelve grammar schools in Gloucestershire the combined income is about 4000*l.* a year, exclusive of large blocks of school buildings and

extensive premises. For this sum the very small number of 500 boys is educated, and of these the great majority pay fairly high school fees. Many of these endowed schools are nearly empty. The work performed by them is miserably poor. Their endowments are almost if not quite useless. And the reason is, that the schools are too numerous, and are scattered about in small country towns, often remote from railways. Scholars cannot be found to fill them. Good school buildings, efficient masters, well framed schemes, are of no avail. These endowed schools belong to an age which has long passed away, when communications were difficult, and the whole life of a country district centred in the small market town. The school of the place, founded by some wealthy townsman, who desired to bestow a permanent gift upon his old home, received the sons of the county gentry, of the professional men, of the farmers, and even of the more intelligent labourers. It was the one educational influence, and it did good work. But now all is changed. Efficient elementary schools give the rudiments of education to the sons of the labourer, and even of the farmer ; and for more advanced instruction the lads are usually and rightly sent to a distance from their homes. The county gentry, and the professional men, now send their sons to the public or the large proprietary schools, and the ancient endowed schools, which ought to perform very valuable work in bridging over the gulf between the elementary schools and the Universities, are, in these small country towns, doing scarcely anything. The Charity Commissioners take considerable pains in remodelling them ; but though they can create governors, they cannot supply scholars ; and the inefficiency which they desired to remedy remains more hopeless than before.

Now, if, by a wide scheme of redistribution of endowments, these small grammar schools could be altogether abolished, very large funds would be at once set free, funds probably large enough to establish a few large and efficient boarding schools for each county ; to provide exhibitions tenable at such schools by the most promising boys of the

elementary schools of those towns from which the endowments were taken ; and also to furnish a fund for the thorough examination and inspection of all the secondary schools.

Such a suggestion is necessarily vague ; perhaps it is entirely unpractical ; but at least I would desire that attention should be drawn to the very large endowments which at present, in spite of all improvements, are almost wasted ; to the very large number of secondary schools, which at present are subject to no supervision whatever ; and to the need of some system of examination and inspection which will not be beyond the resources of schools, and which will reach to all, not only to a few, and test the attainments of all the scholars, not only the performances of a selected few.

SCOPE AND LIMITATIONS OF INSPECTION.

By the Rev. Father GERARD, S.J.,
Stonyhurst.

IF I have undertaken to say a few words in connection with the subject before us to-day, it is not because I have any theory to formulate or any practical system, either my own or another's, to propose. If I can contribute anything to such a discussion as this, it must be in the way of suggestion merely, and that not as to the means of accomplishing ends, but rather as to the end itself to be kept in view, and to which, as seems to me, our means should be subordinated. Nor do I wish to speak as claiming for whatever views I may propound any absolute finality even in my own mind. In the work of education, as I suppose in all works which deal with the solution of practical problems, there is and must be a continual process of development, or at least of change, in the mind of the worker ; development, if he be

working on right lines, change of some sort on whatever lines he works. It is quite impossible in such a matter as this to be so satisfied with either results or processes, however good, as to dare to write complacently one's Q. E. F., and in the midst of what may look to others like unmixed success, a practical teacher who has his heart in his work must be conscious of much waste both of material and of energy which goes far to make success look to himself very much like failure. He will of necessity therefore be always striving after better things than he has succeeded in attaining, and, in the process of threading his way through so tangled a thicket, needless to say that ever fresh openings will seem successively to promise him the more likely tracks.

I am conscious, therefore, that as the views which at present commend themselves to me differ not a little from those I have held at former periods, so, not improbably, they may in future be so modified as to assume a complexion quite other from that they now have. But, as one goes on, the general direction at least of one's path seems to become better determined, and I can do no better for my fellow-workers than indicate to them what I myself have gathered as to the point towards which it lies.

To this task I shall strictly confine myself, without seeking authorities to support my views, as though I were writing a treatise, but simply detailing as succinctly and as plainly as I can the results of my own experience.

Having now for some years been engaged in a task which is strictly one of school inspection, examining personally several times a year all the classes and all the individual boys of a large public school (I mean Stonyhurst), it is inevitable that this question of inspection, its utilities and its difficulties, its possibilities and its impossibilities, should have forced itself upon me, and that abundant material on which to work should have been presented to my mind. In treating the question so suggested I do not propose to ask how far in actual circumstances, in view of the competitions and necessities of modern life, inspection may be needful for the attainment of what may be called an artificial end.

On such an occasion as this it is incumbent to look higher, to treat the subject from their point of view whose aim is not the attainment of this or that particular object, the passing of an examination, or the entrance to a profession, but the fullest and truest measure of education properly so called of which in the nature of things the mind is capable. This larger view of the question will of course, in their measure, include all others.

To begin, then, at once without further preface. Inspection of some sort is, without doubt, a necessity. Without it there is danger of arrangements becoming—whether in a whole school or in a particular class—too domestic. In spite of the dissatisfaction, whereof I have spoken, which a teacher will needs feel with his own work, standards are apt to be lowered, or at best, being individual and arbitrary, they will fluctuate and become misleading. Opportunity must be given to teachers and taught alike of seeing themselves as others see them, and in some degree at least of measuring their strength with that of others. Indeed, so obvious are the advantages of such inspection that all who are earnest in the work of education, who wish to be in effect, rather than to seem, efficient, will begin their career with a strong prepossession in its favour. But I am mistaken if the lesson of experience shall not in other cases be the same as in my own, that excess is fully as harmful as defect, and that of excess there is perhaps more danger. For it will, I think, be borne in upon the educator by advancing experience, that inspection cannot possibly do all that he in fancy had pictured it as doing, while in attempting to go beyond its true functions it will cripple if not crush his true and substantial work which its only *raison d'être* is to aid.

For undoubtedly the true and substantial work is that of the teacher : that of the inspector is good and useful so far as it helps or enables or compels the teacher to teach better : it is worse than useless, it is mischievous, if it supersedes him in his own domain. And teaching is an art amongst arts. To be worthy of the name it must be the work of an

individual upon individuals. The true teacher must understand, appreciate, and sympathise with those who are committed to him, he must be daily discovering what there is, and undoubtedly there is something in each of them, capable of fruitful development, and contriving how better to get at them and to evoke whatever possibilities there are in them for good. Such work cannot be done by machinery, and the teacher will be made to do the work very much of a machine, if certain fixed and definite results, and such only, are demanded of him under the name of inspection.

As with the teacher so with the taught. There must be an important difference between the results of such training as I have tried to indicate in the case of different individuals, even when trained by the same hand; far more so when they are trained by different hands. No one can really judge of the relative merits of a set of boys half so well as the teacher who sees them in all their moods and has time to acquaint himself with their various strength and weakness. If time be not given for this, if they are judged and ranked simply by one sort of results, and if they are taught to look to such an issue as the be all and end all of their educational course, then I say the more important is for them obscured by the less, and the teacher, the real power, is superseded in favour of the inspector.

The first and greatest requisite, then, for true education is, as I judge, to secure teachers in every way capable. It is within the competence of an inspector to satisfy himself when a teacher is capable and when he is not, and to the ascertaining of that point his business should, as I hold, be confined. Coming in once in a way, reviewing on one occasion only the performance of a class, he cannot, as I have said, undertake satisfactorily and finally to discriminate between individuals; but he easily can, especially in oral work, discover what is the tone and style of the work going on, whether there is earnestness, brightness, and intelligence, whether boys think for themselves, and whether the general level of their attainments is up to what it should be,

He can also on paper discover whether or not certain essential points are looked to by the teacher, and, especially in the matter of composition, he can to a fair extent gauge the intellectual capacity which has been developed. To my mind an inspector or examiner's task is far most satisfactorily performed, when he is not hampered by the necessity of assigning marks for individual performances, but can endeavour freely to estimate the quality of the work from such indications as I have above sketched. If he be satisfied that good work goes on in the hours of teaching and learning, then he may be satisfied that good results will follow from a course of such work. He may go somewhat further; he may indicate in classes, after what I may call the Oxford method, those individuals amongst the taught who have attained to, or fallen short of, certain broad lines of merit; but the points to be taken into account for such a verdict will be so various as to be for any more detailed judgment incommensurable, and he will needs go beyond his brief in attempting a classified order of individual merit.

In saying this I am speaking of inspection on a large scale, and I include under the name of inspection those public examinations which aim at promoting the education of the country by affording to all the opportunity at once of referring their work to an external standard and of comparing their performance with that of others. What is turned out on such a scale must of necessity be, in a great degree, mechanical, and it would be as unreasonable to expect of an examiner, or of a board of examiners, delicate and appreciative treatment of individual merit, as to ask a contractor undertaking to supply all the lamp posts in London to exhibit that variety and ingenuity of design which we find in the mouldings of Westminster Abbey.

When it is attempted to construct a system under which inspection, that is to say examination, is to do this work, of which I say it is incapable, there being nothing but results to go on, it becomes necessary to make results hard of attainment, in order that there may be the means of

separating candidates in the resulting list. Sometimes this is done by multiplying subjects, so that all are morally sure to find somewhere or other a stumbling-block; sometimes by making the matter to be gone through so extensive as to secure that the race shall be to the swift. In either case the result is, as I conceive, disastrous. For true scholarship in any branch there is required what the Greeks termed σχολή, a feeling of having one's time well in hand, and leisure to devote it to whatever of interest or of beauty may offer itself by the way. As the charm of the fairest landscape is lost to a pedestrian who is on the stretch to catch a train, so will no branch of study win the interest of a student whose first thought has to be about the milestones of his course, and who has daily to ask himself whether he be within duly measurable distance of his term.

In my own experience I have been much struck to find that those who have in after life exhibited the most scholarly tastes are precisely those who have not subjected themselves to any of those tests which it is often assumed can alone satisfactorily stamp intellectual status. Those who go through the labour of preparation for an arduous examination are very apt to consider all connected with it as a mere matter of business, and when it ceases to be business it never presents itself to them in the light of pleasure. Those on the other hand, though less promising at school, who have not had the taste spoiled for them, like that of sweets for children when associated with medicine, not unfrequently find in after life the most wholesome of pleasures in intellectual pursuits. One I remember who surprised me by telling of a club to which he belonged at the Antipodes which met weekly to play tennis and afterwards at dinner to discuss etymologies. Another from the Far West quite lately in a letter spoke of finding in Aristotle and the Calculus a charm which he had never imagined they would contain, and a relief to *ennui* that would be otherwise unbearable.

There is one point more. The object of the Exhibition in which we are met may well remind us that inspection to

be satisfactory should be made under normal conditions. As the health of a subject can be judged only when he is unexcited by any extraordinary stimulus, so can the state of the mind. The novelty and critical importance of a formal examination throws all somewhat off their balance, but some far more than others, so much so as to create a distinction between persons of various temperaments which is altogether artificial. Leaving aside the influence of luck, of mere unintellectual cleverness in evading difficulties or forecasting the ways of examiners, and the like, this would of itself be enough to make mere examination, and therefore inspection which takes the form of examination merely, an unsatisfactory system.

From what I have said it will be gathered that I should regard any national or general system of inspection, whether by the State or by university bodies, with dismay. I should in fact judge it as feasible to institute a satisfactory system of inspecting gardens. A recent instructive and entertaining writer has told us that it is quite fatal to allow one's gardener to exhibit at shows, for that he at once ceases to take interest in any product that will not commend itself to judges and win prizes. In reality his first duty is to the owner, and he should study his varieties of soil, his opportunities of sunshine and of shade, with a view to procure for the owner the largest measure possible of pleasure and of profit. So should it be with the cultivator of the mind, and the only eye which will really suffice to keep him to his legitimate task will be that of one who takes such personal and loving interest as will lead him to see in the first place and before all else that the best is being done that can be done with the material at command.

Mons. COUVREUR was then called upon by the Chairman to read M. Jottrand's paper on "The Annual Examinations undergone by Conscripts in Belgium." Previous to reading the paper, Mons. Couvreur said that some twenty years ago he was perusing some statistics about education in his own

country, giving the proportions of elementary knowledge and ignorance amongst the people. At that moment he received the visit of a boy whose mother wished him to be engaged as an apprentice in a printing office. On examining him he found that this boy's reading was a kind of spelling, and that he did not always understand the clear meaning of the words. His writing was a kind of calligraphy or drawing, very slow work; his arithmetic the knowledge of some mechanical proceedings for solving an elementary problem, without any capacity of solving the problem itself. He was an intelligent boy, he had been at school for four or five years, but his instruction had been so formal that he was unable to make use of it, and he ought to be ranked, by the statisticians, amongst the ignorant, and not amongst the educated people.

This experience, which showed him the value that is to be attributed to statistics based upon the question if a man is able to read and to write, induced him, as President of the School Inquiry Commission, to submit to a similar examination in 1882 and 1883 the whole annual contingent of the Belgian army, some ten thousand conscripts coming from those classes for whose wants elementary education had been organised in the country. It was a test put upon the results of this education Act as it had worked since 1842, and the paper he had in hand showed what had been those results. Mons. Couvreur then read the paper of M. Jottrand as follows :—

ON THE ANNUAL EXAMINATIONS UNDERGONE BY CONSCRIPTS IN BELGIUM.

By G. JOTTRAND.

AMONGST the numerous documents published by the Commission appointed by the Belgian Chamber of Representatives to enquire into the condition of Primary Education

in Belgium, the Reports on the degree of education of the Conscripts at the time of joining the army seem to us to deserve the special attention of the International Conference on Education now assembled in London.

They show in an accurate manner the degree of education of the mass of young Belgians of the ages of 19 and 20 in 1882 and 1883; and give an opportunity of judging of the efficiency of the institutions of popular education under the system prevailing from 1870 to 1878.

In every country where the male population is, at a certain age, liable to serve in the army, a *physical examination* of the recruits is compulsory.

Nothing could be more reasonable than to hold also an *educational examination.*

This examination has been established in Belgium ever since the organisation, in 1842, of a system of general primary education at the expense and under the supervision of the State.

It was then deemed sufficient, at the time of the conscription, to obtain from the men a declaration as to their degree of education. They were asked whether they could read and write, and knew arithmetic, or whether they had further knowledge; and their answers were taken down.

Since 1875, the Swiss Federal Authority has directed that more satisfactory enquiries should be made.

It has been decided by an order of the 28th of September, 1875, supplemented by an order of the 15th of July, 1879, that all the men joining the army should, at the same time as they submitted to the physical examination, undergo an educational examination, presided over by educational experts appointed by the military authorities. The object of this measure was to ascertain accurately, every year, the progress of popular education in the various cantons composing the Republic.

Every citizen who is not physically incapable being liable to serve in that country, it follows that all young men of the age of 20 undergo the examination we have just mentioned.

Thus the degree of education of 24,294 young Swiss in 1883 has been correctly ascertained.

As far back as 1876, the Belgian War Department, then under the direction of Lieutenant-General Thiébauld, had followed the example of Switzerland as far as it was possible to do so, considering the difference in the military institutions of the two countries.

By a circular dated the 25th of March, 1876, he had given orders to prepare in each corps a statement showing the degree of education of the men at the time they joined the army, and when they left on furlough.

In these statements the men were divided under fourteen classes; the lowest comprising the men who were utterly ignorant, and the highest those who had received a good average education.

The object of the War Department was two-fold. In the first place it was desired to give to the Ministers of the Interior and of Public Instruction more accurate statistical information than formerly, and also to ascertain the results given by the system of auxiliary primary education established in all Belgian regiments, in conformity with the military law of 1870, which sets forth that all illiterate soldiers shall compulsorily attend classes in order to learn reading, writing, and arithmetic.

But the statements prepared in each regiment, according to the individual views of the commanding officers, were not sufficiently accurate and uniform.

Consequently, in the course of 1882, at the request of the Commission of Educational Enquiry, the Minister of War, Major-General Gratry, gave the necessary orders for the educational examination of the conscript joining the army to be carried on in future in the same manner in all regiments, and by means of written papers.

Twenty-seven very simple, but graduated questions were set on the 16th of October, 1882, to the men who had just joined the army. We give them here:

1. Give your Christian name and surname?
2. In what Commune were you born?

3. Where is your native "Commune" situated, and in what Canton?

4. In what "arrondissement" is your native "Commune?"

5. In what province is your native "Commune?"

6. What was your profession before joining the army?

7. What is your mother's surname?

8. Add 492 + 102 + 18.

9. A merchant purchases 35 sacks of potatoes at 9 francs 75 cents. per sack; how much has he to pay?

10. The same merchant sells the 35 sacks for the sum of 456 fr. 25 cents.; what is his profit per sack?

11. How many metres are there in a kilometre?

12. How many litres are there in a cubic metre?

13. Draw a triangle.

14. Draw a rectangle and divide it into six equal parts.

15. In what country is the town of London situated?

16. Name the four principal towns in Belgium, and the rivers on which they are situated.

17. How can the four cardinal points be found at sunset?

18. What are the three states in which water presents itself in nature?

19. What is the first treatment to be applied in case of drowning?

20. What is the use of the thermometer?

21. Did Moses live before or after Christ?

22. Give the name of a celebrated Belgian, and state in what manner he was distinguished.

23. Relate any historical fact relating to Spanish dominion in Belgium.

24. Say what are some of the principal duties of man.

25. By whom is the "Commune" governed?

26. What are the Powers recognised by the Constitution?

27. By whom are the laws made in Belgium?

The following year, on the 20th of October, 1883, a similar examination took place; the questions, simpler than those of the preceding year, were the following:—

1. Give your name and surname.

2. In what "Commune" were you born?

3. Where did you reside before joining the regiment; in what "Commune"?

4. Where did you reside before joining the regiment; in what Canton?

5. Where did you reside before joining the regiment; in what Province?

6. What was your profession before joining the army?

7. What is your mother's surname?

8. Write in figures the number forty-three thousand seven hundred and eight.

9. A workman earns 37 centimes per hour; he works 13 hours daily. How much does he earn in 6 days?

10. During 6 days he spends 84 centimes to keep his tools in repair, and 3 francs daily for board and lodging; what remains to him daily for other expenses?

11. How many grammes are there in two kilogrammes?

12. How many square metres are there in a hectare?

13. Draw a square.

14. Draw a circle, and divide it into four equal parts.

15. Name two countries situated in Europe.

16. What are the countries contiguous to Belgium?

17. What is the shape of the earth?

18. What is the action of fire on the length of a bar of iron?

19. What are the precautions to be taken when perspiring.

20. What is the use of the plumb-line?

21. What do you know about Noah?

22. How many years have elapsed since the birth of Christ?

23. Who lost the battle of Waterloo?

24. What are a child's duties to his parents?

25. By whom are the Members of the Communal Council nominated?

26. What are the principal liberties secured to the Belgians by the Constitution?

27. What are the necessary qualifications to vote at the

elections of Members of the Chamber of Representatives and of the Senate?

Out of 49,000 young Belgians who, on an average, drew lots at the Conscription, in each year, 8917 were examined in 1882 (the total contingent being 12,969 men), and 9359 in 1883 (the total contingent being 13,146 men).

In 1882, 1528 men, being substitutes for young men belonging to good families, were purposely not taken into account at the examination; and in 1883, 1468 men were similarly excluded for the same reason.

It may be supposed that the Conscripts who paid for substitutes, would, if examined, have proved equal to the men who gave satisfactory replies.

The surplus men forming the contingent were not examined either, because they joined the army before the legal date, or because they joined later on, or through illness. It must be admitted that, had they been examined, they would have proved equal to the generality.

Besides answering the above questions in writing, the Conscripts were required to declare to the examining officer what school they had attended, and for what length of time. This is a very important point.

Those questions gave the following results:—6 per cent. of the conscripts examined in 1882, and 5 per cent. in 1883, had never been to school.

Among those who had been to school, 63 per cent. in 1882, and 66 per cent. in 1883 had attended school for four years or more.

In 1882, 27 per cent., and in 1883, 24 per cent., of the men examined could not write, and out of these illiterate recruits, 84 per cent. in 1882, and 71 per cent. in 1883, could not even sign their name.

This rectified the information obtained by means of declarations only, according to which, as far back as 1875, 75 per cent. of the men were supposed to be able to read and write. It was only in 1882 that this proportion was reached.

These results confirmed an annual steady advance in

knowledge, making more rapid strides in the last few years than formerly.

Indeed, it took 40 years, from 1843 to 1883, before the proportion of conscripts unable to write, decreased from 55 to 24 per cent., whilst recently, in a single year, the proportion fell from 27 to 24 per cent.

But if we go into the details of the results of the two above-mentioned examinations, it will be seen that both confirm this sad fact, that the real education of those who, with great trouble, have been taught to read and write has remained very unsatisfactory.

In order to obtain an accurate idea of their educational condition, the results given by the examination of the pupils of primary schools only must be taken into account; for the pupils of the middle schools belong to classes of the population who have always been able to read and write.

The examinations of the pupils of primary schools have given the following results:—

Writing.—Satisfactory only in 28 per cent. of the men in 1882, and in 27 per cent. in 1883.

Spelling.—Good only in 26 per cent. in 1882, and in 23 per cent. in 1883.

Arithmetic.—67 per cent. in 1882, and 63 per cent. in 1883, had a knowledge of numeration and addition; 47 per cent. in 1882, and 38 per cent. in 1883, had a knowledge of multiplication; whilst division was known only to 18 per cent. in 1882, and to 11 per cent. in 1883.

It must be here noted that confidence should be placed especially in the figures relating to the year 1883.

In order to obtain more uniform reports on the examinations, they were presided over last year by officers who did not belong to the corps where the examinations took place, and who were accustomed to such duties as professors in the regimental schools, and had, besides, received special instructions.

Moreover, in 1883, to avoid certain irregular practices detected in 1882, it was ordered that the men should give

in their papers the calculations by means of which they had solved the problems set to them ; and not simply the result. After the rudimentary knowledge, reading, writing, and arithmetic, the first knowledge to be required is that of *weights and measures.*

In 1882, the simplest question on this subject was solved by 50 per cent. only, and in 1883 by 43 per cent. only of the men.

As soon as the questions became more difficult, the proportion of correct answers fell to 29 per cent. in 1882, and to 14 per cent. in 1883 ; whilst the proportion of absolutely wrong answers rose to 60 per cent. in 1882, and to 58 per cent. in 1883.

The knowledge of the most usual geometrical forms gave the same result.

In 1882, 32 per cent. of the pupils of primary schools did not know what a triangle is, and in 1883, 31 per cent. did know what a square is.

Geographical knowledge was even more imperfect.

In 1882, 49 per cent. of the above-mentioned pupils of primary schools did not know where London is situated, and in 1883, 46 per cent. were unable to name two countries in Europe.

In 1882, 70 per cent. were in absolute ignorance with regard to the four cardinal points ; in 1883, the question was made easier, and it was only asked what is the shape of the earth ; 35 per cent. had not the slightest idea of it.

As regards physical laws their mind was a perfect blank, so to speak.

In 1882, the proportion of those who knew what the three states are in which water presents itself in nature was 5 per cent.

In 1883, 7 per cent. only of the men knew that heat expands metals.

In 1882, 14 per cent. of the men knew what is the use of the thermometer.

In 1883, 17 per cent. knew what is the use of the plumb-line.

The insufficient replies with regard to concrete notions, is an indication of what may be expected with regard to more abstract subjects, such as religious and modern history, and the elementary principles of the political organisation of the country.

In 1882, 36 per cent. of the men were able to say which of Moses or Christ lived before the other. In 1883, 11 per cent. only knew something precise about Noah ; 54 per cent. knew absolutely nothing of him, and 50 per cent. had no notion whatever of the Christian era.

It is therefore not surprising that, in 1882, 16 per cent. only were able to name a celebrated Belgian, and that 4 per cent. only were able to relate a fact in connexion with Spanish dominion in Belgium. And in 1883, questioned upon a comparatively recent event, universally known, and which took place in Belgium, 40 per cent. only were able to say who had lost the battle of Waterloo.

Now, as to knowledge of political organisation.

In 1882, 57 per cent. of the men examined were in complete ignorance as to who made the laws in Belgium ; and in 1883, 76 per cent. knew absolutely nothing of the qualifications of voters.

As to the powers recognised by the Constitution, in 1882, 92 per cent. had not the slightest idea of the matter ; and in 1883, 87 per cent. were in the same ignorance with respect to the liberties it guarantees to the nation.

We refer the reader, for further details, to the tables annexed by the Commission to its complete reports on the examinations of 1882 and 1883, and which give in full, and in proportionate numbers, the results given in the case of each of the above-mentioned questions.

Among the men who were examined, how many could be considered as having a complete primary education ?

Considering the simple nature of the questions, none of which were above the ability of a pupil of a good primary school (even of a country school), it must be admitted that no one could be considered to have reached that standard who could not give satisfactory replies to all the questions.

Indeed a good many of the satisfactory papers were those of agricultural labourers who obtained 58 marks, *i.e.*, 2 marks for each reply, 2 marks for handwriting, and 2 marks for spelling.

Nevertheless the Commission decided that every paper having obtained 51 marks at least, that is, with indifferent spelling, deserving only 1 mark; and with no marks at all for three of the questions, or 1 mark each for six questions, would entitle its author to be considered as having received a complete primary education.

Under the above regulation we find that in 1882, 2·30 per cent. (and in 1883 3·80 per cent.) of the *whole* of the conscripts examined, that is, *including* the men coming from middle schools, and 2 per cent. only (in 1883 2·70 per cent.) of the men from primary schools, being able to write, have reached that degree of education.

The men from the middle schools, taken separately, give much more satisfactory proportions. In 1882, 17·10 per cent., and in 1883, 21·17 per cent., had obtained 51 marks or more.

It will be noticed that the proportions for 1883 are much more satisfactory than those for 1882. Care should be taken not to look upon this fact as an exclusive proof of improvement.

The more favourable proportion is evidently due, to a great extent, to the simpler nature of the questions, which are so simple that they could not possibly be made easier.

The situation we have just ascertained is the result of forty years' labour, commencing with the observation in 1843, as we have already said, of such a degree of ignorance that one-half of the population could neither read nor write. What degree of education shall we be able to reach in the future?

Are we to give up all idea of seeing the great bulk of the people reaching beyond the present standard of the pupils of the middle schools?

If so, we must even now be resigned never to see more than one-fifth of the population able to understand the most

important features of the constitution of the country in which they spend their existence, and to leave the rest to lead an inconscient life, like the cells in an intricate organism.

The schools, as proved by the Belgian examinations, are the only source whence the masses derive every knowledge they possess ; on every subject, the knowledge acquired by the people is in direct ratio of the efficiency of the schools they have attended, and of the time they spent at school.

If even the middle schools can only give to four-fifths of the people's children a knowledge of reading and writing, and of the first three rules of arithmetic (we purposely speak of three rules only), then what is the use of so many discussions on the programmes and modes of teaching?

Happily this is far from being the case, and the comparison of the results obtained in Belgium with the results obtained in Switzerland, shows that the degree of education corresponding to the 51 marks or more of the Belgian examinations, can be reached by at least half the population of European countries.

We consider this degree as equivalent to that expressed by Swiss Educational experts by the degree $2\frac{1}{2}$—that is halfway between degree 5, corresponding to utter ignorance, and degree 1 corresponding to a good primary education.

Reading :—

Degree $2\frac{1}{2}$ indicates an intermediate degree between the following :—

Degree 2 : satisfactory, and tolerably correct answers to a few questions on the pieces read.

Degree 3 : tolerably satisfactory, and slight knowledge of the subject.

Written Exercises :—

Degree 2 signifies : Written paper not quite satisfactory as regards composition and general merit (spelling, punctuation, handwriting) ; slight mistakes.

Degree 3 : Handwriting and composition very poor, yet intelligible.

Arithmetic :—

Degree 2 : The four rules, with integral quantities, and knowledge of division, when the dividend and divisor are composed of several figures ; also the simplest fractions.

Degree 3 : Addition and subtraction up to 100,000, and division by one figure only.

Geography, History, and the Constitution of Switzerland :

Degree 2 : Satisfactory answers to rather difficult questions on these three subjects.

Degree 3 : Knowledge of some few facts, or names relating to history and geography.

Now, in 1883, 52·70 per cent. of the whole of the Swiss contingent obtained the mark II½ ; and this average is worked out of the following extreme figures ;

Contingent of	Friburg	24·80	per cent.
„	Uri	25·80	„
„	Valais	27·60	„
„	Genève	84·40	„
„	Bâle-Ville	82·50	„
,	Thurgau	78·40	„
„	Zurich	74·10	„

We dwell on the examinations of the Belgian and Swiss contingents in the hope of convincing all those who are interested in the progress of popular education, of the necessity of establishing in all countries, and of preserving in the countries where they are applied, similar means of ascertaining the progress of education. It is the only means by which we can guard against illusions such as many interests contribute to foster.

Simply to ascertain whether the young recruit can read and write is tantamount to ascertaining nothing. Unless his mind is sufficiently developed, the average working man, even when he has been taught to read, does not read. The words he meets with in books remain meaningless ; the ideas they express are above his intellectual power, and he does not read, because he finds in reading neither amusement nor profit.

The Belgian examinations included a statement by the men of the books they had read. There were not 20 per cent. who had read anything beyond their class-books, and 5 per cent. who had read a really useful work. Nearly all the latter were pupils of middle schools. There is a wide difference, therefore, between the material ability to read, and the intelligent use of the art of reading. In order to diminish this difference, the popular language must be extended and purified; the difference in the language used by educated men and by the illiterate classes gives rise to many inconveniences, one of the chief of which is the obstacle to the setting of the examination questions. Nothing is more difficult, when addressing uncultured minds, than to express ideas in precise and unambiguous words. When the examiner departs, be it ever so slightly, from his customary manner of speaking, he meets with unexpected difficulties. Very curious examples of this have occurred in Belgian examinations which space does not allow us to mention in this paper.

The schools must make every effort to bring about an intellectual *rapprochement* of classes, and the insufficient statistics which were thought good enough for a long time give no information as to the progress of this reform.

The more precise information we are asking for is strongly objected to in some quarters.

Sectarian spirit and routine are ever trying to conceal the truth, especially when the truth must enlighten the masses on the respective merits of the various schools which, in a country where education is free, make every effort to obtain the support of parents.

National pride often encourages the bad tendencies we have alluded to, and prevents nations from exposing thoroughly their own ignorance.

We must overcome all these difficulties.

It is by the use of the microscope and other instruments of precision that natural sciences have made such progress in this century; a similar process must be applied in order to ensure to society a healthy state of mind and body.

The examinations established in Belgium have already been favoured with the approbation of the French Institute (Academy of Moral and Political Science) at its sitting of the 12th of January, 1884. M. Octave Gréard, the eminent vice-rector of the Paris Academy, has thus expressed himself on the first Report of the Belgian Commission of Enquiry on Education on the examinations of the contingent of 1882: "This document will remain as one of the most interesting of the end of this century on the question of popular education."

We firmly hope that the International Conference on Education, now assembled in London, will endorse this flattering opinion.

N.B.—The publications above referred to are:—

For Belgium: A Report, with numerous tables, laid on the table of the House of Representatives on the 31st of July, 1883, and referring to the examinations of 1882; one volume of 1133 pages joined to the Report, and containing the text of 1059 examination papers from various regiments, representing the three branches of the army. Another Report, entitled: 'Rapport sur les examens de 1883, et sur l'organisation des institutions d'enseignement primaire dans l'armée,' laid on the table of the Chamber on the 15th of May, 1884.

These three publications have been printed at Brussels by Mayer, Imprimeur de l'Académie Royale de Belgique, in 1883 and 1884.

For Switzerland: The Reports on 'l'Examen pédagogique subi lors du recrutement' have been published every year since 1875 in the 'Publications Officielles sur la Statistique de la Suisse,' published at Berne, by Orell, Füssli and Co.

Mons. Couvreur then gave several instances of the ignorance of soldiers in their answers to various questions put to them upon general subjects.

DISCUSSION.

The Rev. Dr. GRAHAM said he should have hesitated in taking part in this discussion had it not been for the lamentable description which Mons. Couvreur had given them of education in Belgium fifteen years ago. These young conscripts were educated twelve, fifteen, and even twenty years ago. He supposed a more lamentable description of the state of education in any country was never heard. Alongside of that he was thoroughly puzzled for this reason, that in the past Belgium had placed herself in a position of independence of which any nation in Europe might justly be proud. Mons. Couvreur said that some of the conscripts were unable to answer the question, Who fought the battle of Waterloo? Their own grandfathers helped to fight the battle and to win it. They not only made themselves independent of their powerful neighbours Germany and France, but I know about twelve or fifteen or less years ago they were like two jealous gentlemen who were looking after a very wealthy and good-looking young lady to make her their wife. France and Germany were as jealous of each other on this point as to who should get Belgium to join with them and become their other half as any young man could be on behalf of a noble lady. In spite of Germany, in spite of France, Belgium has remained independent, and had been respected by Europe and would be respected. As to agriculture, Belgium had proved herself to be in agricultural matters the most successful country in Europe. He knew that Scotland, and especially the Lowlands, had distinguished itself in this subject, but he did not think it had excelled Belgium. Belgian soldiers were admitted to be the best in Europe. He should like to ask Mons. Couvreur how it was that these men, who were so ignorant that they were a disgrace to modern Europe, should be able to maintain that state of independence, to be the best soldiers they had in Europe, to be the best agriculturists, and to raise their own nation to the high position which she

now occupied—how could he reconcile those two things? He believed Belgium was a noble nation and deserved their respect, but if they were to take Mons. Couvreur's description, he thought they would form a very low estimate of the Belgian people. It meant that absence of education was the best means of making good soldiers and good agriculturists if it meant anything. He had no doubt Mons. Couvreur would answer that question now.

Mons. COUVREUR thanked Dr. Graham, but took exception to his conclusions. He said: No doubt the Belgian people have many qualities, and it is gratifying to national patriotism to find them acknowledged. But the qualities of a nation do not exclusively depend on its degree of education. It is an element—the most important element—of its greatness, but it is not the only one to be considered. Thus, in Belgium, the Government of the nation is in the hands of the upper and middle classes, who make the laws. Taken generally, these classes are educated, and favourable to progress, and their morality is comparatively of a high character. They lead the popular classes, which alone are concerned in the military examinations, and which hitherto have had no share in the government of the country. All that can be said of them in order to account for their prosperity is, that their ignorance has not impaired their other qualities. They are naturally easily led. They have much good sense, and are also very orderly. This is a sufficient answer to the question of the reverend gentleman. But it must be admitted that had Belgium been governed, not by an enlightened *bourgeoisie*, but by an ignorant democracy, that country would not occupy in Europe the place it now holds, and would not enjoy the consideration with which it is favoured. It must not be inferred from the revelations made in M. Jottrand's paper, that Belgium is not sufficiently provided with schools, or that the country is indifferent to the progress of education. True, compulsory education has not been introduced in the country, but education is absolutely free, and in conformity with the law of 1842, the public authorities on the

one side, and the Catholic Church on the other side, have largely availed themselves of this liberty. But notwithstanding competition in educational matters, all the schools are not good, nor are the various educational methods satisfactory. The chief cause, however, of the backward state of popular education in Belgium is, that the schools are insufficiently attended, and for too short a period. Many children do not attend school, and when they do, attend very irregularly, and only until they are twelve years old. What knowledge can a child have acquired under such conditions when twelve years old? And what will he be at the age of eighteen? If our schoolboys had undergone the examinations undergone by conscripts, the result would have been more satisfactory; but the test would have been incomplete. It would have shown us what the schools can teach to the children, but not what knowledge the adult acquired and retained. The evil disclosed by examinations is common to many countries, and is due particularly to insufficient education. A child to whom reading is a laborious operation, who does not readily understand what he is reading, will not read after he has left school, even if he has books at his disposition. A child who only knows the rules of arithmetic, and is incapable of solving a problem by reasoning, and whose memory alone has been trained, is one who, having some knowledge when twelve years old, will be ignorant at eighteen. The great sacrifices made by the community for the education of the younger generations are thus rendered useless. One of the most weighty conclusions to be drawn from these facts is, that it does not suffice to decree the liberty of education in order to insure to the nation who enjoys it, the highest degree of popular culture. State intervention and compulsory education even are not sufficient when the teaching extends over too short a period, or when it does not succeed in awakening in children a wish to remember what they have learned, and in giving them the means of so doing. The necessity of raising, by means of the schools, the educational level of

the masses is now beyond question. It is henceforth for nations a question of life or death. When all are equally ignorant and have no relations with each other, they may prosper through causes other than education; but by degrees, as they enter into competition, and the barriers which separate them are removed, skilled labour makes its influence felt. Whether in agriculture, industry, or commerce, the most educated nation—that which will best know how to turn to account its knowledge—will assert its superiority over all others, notwithstanding their qualities of race and the natural advantages of the land they inhabit. So also the best educated people will be that whose institutions will be best calculated to promote order and prosperity. The extension of the right of voting, the development in a democratic sense of representative institutions, involve the development of popular education. An ignorant democracy becomes a demagogy when it does not surrender to some tyrant or oligarchy. The examination of conscripts has shown to Belgium what has been done, and what remains to be done, in order that the Belgian people may become a true democracy, capable of governing itself, and of governing itself wisely. These examinations have shown better than the inspection of our schools and educational statistics could do, what our people really are, and what benefit we have derived from our effort to elevate its educational level. The revelations thus made have been painful. To many they have been a great disappointment. We thought we had combated ignorance with greater success. Nations are but too prone to entertain illusions. It is necessary to give them the means and the wish of knowing themselves thoroughly. It is a bad patriotism that which consists in singing one's own praises. If French conscripts and English soldiers were to undergo the same examinations as the Belgian conscripts, the results might possibly be less satisfactory still. In order to be convinced of this it is sufficient to compare the results obtained in Belgium with those obtained in Switzerland; for Switzerland has submitted to the same test

its system of popular education. Switzerland also has wished to ascertain by other means than the inspection of schools or the examinations undergone at the end of the period of schooling, what knowledge the adult population had acquired and retained under the educational system of the country. There is an enormous difference between the knowledge acquired by the Belgian and the Swiss soldiers; and our duty is to raise ourselves to the same level as the Swiss. The best means to arrive at this result is not to be misled by the compliments kindly lavished upon us, but to ascertain our defects, and to try and get rid of them by the means adopted by nations who are ahead of us.

A MEMBER asked if the examinations were all conducted in French, or whether some took place in Flemish?

Mons. COUVREUR, acknowledging the importance of the question, said that the examinations were conducted in Flemish when undergone by Flemings, and in French when undergone by Walloons. But it must be admitted that in bilinguous countries the diffusion of popular education is more difficult than in other countries. Even where only one language is spoken, the children do not learn in schools the exact definitions of words, and they do not grasp their meaning with sufficient accuracy. The difficulty is twofold when two languages are used. What language, then, must be used in teaching? The children's mother tongue, or that which they must be acquainted with in order to be able to understand and be understood by the upper classes? This is the case in Belgium, where the higher classes generally make use of the French language. The Walloons, therefore, must know French besides their local dialect; and the Flemings must be made familiar with a language having no connection with their own tongue. They leave school knowing thoroughly neither Flemish nor French; and for the sake of learning mere words, they have lost much valuable time, employed elsewhere to give men the scientific notions which they need in order to become useful men and good citizens.

Mr. WALTER ROE said none of them could fail to have

been interested in the excellent addresses with which they had been favoured that afternoon, yet it seemed to him that they could not help regretting that the treatment of the subject had been so one-sided. To put the matter shortly, he wished to draw attention to the absence of any system of organised medical school inspection throughout any of their schools, and to point out what was being done in that direction in certain continental cities. The first organised system of medical school inspection was that which took place in Belgium, and notably in Brussels, about 1874, under the able and direct supervision of Dr. Jansens. He laid it down as essential for a medical school inspector, that, in addition to his knowledge of hygiene, he should have a knowledge of what was requisite for the children, and also a sound knowledge of education, both theoretical and practical. Among the duties devolving upon medical school inspectors at Brussels he might mention the following: He had to draw up maps of the various localities in which he might be placed, in order to show which sites might be the best to build schools upon, and also to supervise and overlook any building plans which might be submitted to him, in order to see that all sanitary and hygienic requirements were carried out. Another duty was to teach the laws of health to all the pupils he might come in contact with. He had also to explain the various uses of the ambulance boxes placed in all the schools. A further duty he had to perform was to make a medical inspection of both teachers and pupils. The examination of the teachers was for the purpose of seeing that they were physically fit for the things they proposed undertaking. It was no use having a teacher who was physically unfit to teach. He made an examination of the pupils in order to recognise any contagious disease, and in case he found it out, to send him home at once. He also made note of backward boys, and took the necessary precautions in order to prevent them being banged on the head in order to be made to understand. Another duty was to make a thorough inspection of all school fittings, and see that the lighting and heating

apparatus were all that they should be; to see to the cleanliness of the class-room, and the school-room, and the playground; and there were numerous other matters that he had to attend to. The value of such attention to detail could not be overrated. This was only a short sketch of a system which had been pursued in Belgium since 1874. The same system had been introduced in France since 1879; it was also in force in Prussia, and had been started in Boston, United States. He might say in conclusion—and he was justified in saying—that no system of inspection or examination of schools was to be considered complete so long as it did not combine at the same time a thoroughly efficient and careful system of medical school inspection.

Miss LUPTON (Bradford School Board) said she had listened with great interest to all the papers that had been read this afternoon, and she should like to call attention to a point in the examination of schools which she thought had not been dwelt upon at all, and that was the difference between inspection and examination. She thought there was no doubt that the visits of inspectors to our schools were extremely valuable. As a school manager she thought they would be able to keep their schools in a much better state of efficiency if they had the visits of good inspectors. But what she objected to was the examination of children for pass purposes by the inspector. Let the inspectors examine children as much as they liked as to their intelligence, but they should not let the minds of children be harassed by knowing that they were to be examined on a special day for a special pass examination. In Bradford they felt that very much. Pass Examinations were of more importance in that town than in many other towns, because of the large amount of child labour which was employed there. Her experience was that half-time children in Bradford as a rule passed just as good an examination as full-time children. That might not be the case with all half-time children, but it was so in Bradford, and half-time children there were generally very healthy. This was said to be because they worked amongst the wool;

the doctors generally recommending work at the mills as being very healthy. Therefore, she might say, they had a very favourable specimen in Bradford of what half-time work would do. What, however, she wanted to point out was the serious effect of the examination for labour certificates upon the minds of children. She would draw attention to the method which was employed in Germany, but which had not been touched upon to-day. She thought the great success of the German method of education should lead them to consider their methods. In German schools the children were examined by the master who had been teaching them in the presence of the master into whose class they were to go, and that master had to pick out those fit for the work in his class. Then there was a local inspector, who was the final authority as to whether they should ascend or remain where they were. This did not harass the minds of the children. They were practically examined by three men. The Government Inspectors in Germany visited the schools, but they did not classify the children, and that was a point she wished they would pay attention to in England. The effect of our scheme of examination was that parents harassed children at four or five years of age and said: "You must work, and you must study, and must get half-time when you are ten years old, so that you can go to work, or we shall all starve." She could assure them the agitation these poor children went through was very great. Children had said to her: "I knew my lesson very well, but when the gentleman put the questions to me, I felt so frightened I was afraid to speak. She thought they should not be frightened like that. In some cases where children did not pass it was the fault of the school, and if they had bad schools their children should not suffer. The teachers and managers should know behind the children's backs what defects there were, but the children should not be agitated by that knowledge. In a special examination for labour certificates which took place in Bradford last month, there were 800 children examined.

The children came from all parts of the town, and the excitement into which these poor children were worked was very great. One poor boy, an orphan, fainted, and had to be taken to the infirmary. A doctor who subsequently examined him said he was threatened with meningitis in consequence of the excitement. The lad recovered and was examined at the inspector's own house, and being free from excitement he passed easily. He was sure they could not realise the touching anxiety of these children to go to work. It was a great relief from their schoolwork, and bought them boots and food. They often heard stories of wicked parents who made their children go to work in order that they might be the means of obtaining luxury, but that was not often the case. The money was required by the children themselves, and was spent on their clothes and food. She really thought they ought to make the examinations less agitating, and she would strongly urge that children should not be examined in large numbers, and as they said, by strange gentlemen, as they got frightened. She was sure that more care and consideration for the children's health and feelings in these examinations would give better results. As to the general question of examination, she thought it was open to question whether so much examination was the best mode of promoting the highest education. Many people did not consider it produced the best scholars.

Mr. BARROW RULE said he was sorry he would have to refer unfavourably to the remarks of the lady who had just spoken; but he had heard so many statements depreciatory of inspectors and examiners as a whole, that he felt it his bounden duty to say something on the other side. He had been acquainted with School Board work since the year 1871. In the district in which he lived they had thirty schools under the Board with which he was connected. He had attended the Government examinations during the past twelve years, and now and then, perhaps, a question a little too difficult had been set, but speaking generally he could not take the slightest exception

to the questions which had been set by Her Majesty's Inspector. He had occasion to visit the schools constantly, and heard the teachers express their views to him as freely as they possibly could, but he very seldom heard any complaint against the examination questions given by Her Majesty's Inspector. With regard to over-pressure —if children were overworked, it was exclusively the fault of the teachers and of the managers. There was a difference of opinion, but he spoke from experience.

A MEMBER: So do I.

Mr. RULE said that there was nothing in the Code at all, so far as he read it, and so far as he heard it read by many practical teachers—there was nothing in the Code which insisted upon over-pressure. He should like any one to show him anything in the Code which required that a child of weak intellect or weak body be presented for examination. He did not see any article which made such a provision, nor did he know any which would prevent a teacher from saying to the parent of such a child, "Keep your child at home on the day of examination."

Miss LUPTON said the child could not go to work.

The CHAIRMAN: I must ask that the speaker be allowed to go on.

Mr. RULE said he did not see that there was anything in the Code which requires a weakly child to be presented at the Government examination. He thought that if parents would do their duty, and teachers would do their duty, matters would be very much changed. He must speak the truth. He would add that if teachers would be as manly, and independent, and honourable in their respective schools towards their respective inspectors as they were bold to find fault when in Conference, matters would be very much better. He thought that inspectors were a very considerate body of men. They had no authority to control the school. They might give advice, but it was optional on the part of the teacher to accept it. Of course, inspectors sometimes made mistakes, and he would like to know among what body of men there were people who

did not make mistakes. Doctors did, lawyers did, and he did not see why inspectors should not make mistakes occasionally. He would say this much, that if managers would pay their teachers a fixed salary, rather than make them dependent upon the Government Grant for part of their income, and thus put them in an independent position, and then judge them—not only by the report of Her Majesty's Inspector for the district, but also by other information which they might possess—things would be better. He thought in many instances managers were indifferent. They handed over the work to their teachers, and if they did not earn a good grant they gave them a quiet rap on the knuckles. But if managers would do their duty in the sight of man and of God, treat their teachers as men and women, give them fixed salaries, and, if the school failed did not necessarily pounce down upon them, matters would be very different. He had seen schools pass through crises; one year they would do well, but next year they would not. Teachers must take their schools as they do their wives, for better for worse, and not be discouraged by any one particular Report.

Mr. ALLEN (Alleyne's Grammar School, Uttoxeter) said he should like to refer to the paper read on behalf of Mr. Browne that morning, as no reference had been made to it by succeeding speakers. He had had a correspondence with Mr. Browne with regard to over-pressure. This question was only referred to in one short paragraph in that paper. He belonged to a school founded more than 300 years ago; the endowment now amounted to a very large sum, but the school had benefited but little by it; £40 a-year only had been set aside for assistant masters. It was impossible to get a good assistant for that sum. The consequence was that being practically single-handed, he had had too many subjects to teach. He read a list of subjects he had taught for one of the Cambridge Local Examinations. It included Arithmetic, English grammar, ii. Kings, Gospel of St. Mark (Greek and English), ii. Corinthians, Shakespeare's "Richard II.," geography and history, Virgil, Æneid II.,

and Latin grammar with unseen translation, Euripides, Heracleidæ, Greek grammar with unseen translation, Euclid and Algebra. He protested specially against the length of the English subjects. Universal geography and English history from 1066–1815 were too much. His school was at the present time in the hands of the Charity Commissioners. In the draft scheme a sum of £50 was set aside for "leaving" scholarships. He hoped more would be granted for such a purpose, and in conclusion said such "leaving" scholarships would be a great advantage to the cause of secondary education.

The CHAIRMAN (Mr. Fitch) : I think I shall be consulting the convenience of the whole company if I at once draw the meeting to a close. I regret our discussion this afternoon has not turned mainly upon the papers which we have heard. I think the experiment which Mr. Thompson has been so largely instrumental in trying in Gloucestershire, is one which deserves to be very widely known, and will, I believe, attract a great deal of public attention. The important paper of Father Gerard, also, which goes into the philosophy of the whole subject, must, in its wisdom and practical suggestions, commend itself to all those teachers who heard it. It is satisfactory to know that these two valuable papers will be printed. The facts which Mons. Couvreur did us the favour to bring forward in connection with the actual results of instruction in Belgium, appear to me especially valuable, and I desire to be permitted, in your name, to thank all these three gentlemen for the care and pains that they took in preparing the papers, and to assure them that when these papers come to be read by a far wider audience, that their pains and labour will not be thrown away. Even at the risk of detaining you a minute or two, I venture to correct one slight misstatement that was made by Miss Lupton. It is true, as I happen to be one of those enemies of the human race, a Government Inspector, any observations I may make may need to be discounted, and for that reason. Nevertheless, it is a simple fact, although it has been repeated over and over again in this room,

that Government Inspectors control the classification of the scholars, they have no power of doing anything of the kind; I, who have been a Government Inspector for twenty years, have never had any influence or sought to exercise any upon the classification of scholars. The whole classification is in the hands of the teacher, subject to this general rule—if a child has passed in a given standard last year, and has attended a considerable portion of this year, that child is expected, as a rule, to pass in the next standard. That is the only possible check which an inspector has upon classification, and I am sure anybody who looks at the fact, and takes the trouble to see how very simple is the advance which the minimum requirements recognise from one year to another, they will see that in the interests of the majority of the children, it is absolutely necessary to have such a rule, provided only that you have an ample and sufficient margin for all reasonable exceptions. That margin exists. Nobody has better reason than I have to know that constant use is made of it, and made with the full concurrence of the officers of the Education Department. And then, when all the terrors of the examinations are talked about, it must be borne in mind that an examination in the work which has been done in the year is an ordinary condition in the work of every scholar under regular instruction. I have never seen evidence of the excitement in connexion with the passing of examinations which this lady has described with so much ability this afternoon. She says the questions are put in such a way as to frighten the children; but it should be remembered that to "pass" the Standard examination does not depend upon oral questions at all. It is an examination in reading, writing, and arithmetic. The examination in reading is conducted by the simple process of sitting down in front of a class and asking the children in succession to read the books in their hands. The examination in arithmetic consists of sums which are given out, and for which ample time is given in order that they may work them out. Oral questions are asked afterwards,

when the class examination takes place ; but they do not affect the passing of the standard examination. I hope it will be seen that there are two sides to the question. We inspectors rely upon the teachers, and have, I am bound to say, the strongest reason to feel respect and confidence for them, and sympathy with the work which they are doing so laboriously. But I think we must ask them in turn to have some confidence in us. Teachers and inspectors have no rival or separate interests, they both desire to co-operate with the school managers, and with all other agencies which are at work upon public education, with the one great object of improving the happiness, intelligence and morality of our children, and the welfare of the community.

The Rev. Dr. GRAHAM said it was now his pleasure to propose a vote of thanks to their admirable Chairman, Mr. Fitch. Many shortcomings of inspectors had been brought before the meeting during the past two or three days. To his mind it only brought out stronger in relief the fact that Mr. Fitch possessed all the good qualities which any inspector should have. He thought they were unquestionably fortunate in London, and he had experience enough to know that both managers and teachers spoke in the highest terms of the London inspectors, like Mr. Fitch, Mr. Sharpe, Mr. Stokes and Mr. Campbell, who showed not only their interest while in school, but their readiness on all occasions to receive the teachers and managers in their own houses, and give them advice ; and, as Mr. Fitch expressed it, it was their wish to co-operate with managers and teachers, to further the noble work of education amongst the children of their neighbourhood. Twenty-five years ago he had the pleasure of hearing Mr. Fitch lecture on arithmetic, when principal of the training college at Borough Road, and a better teacher he had never heard. In addition to his teaching-power, he had during the last quarter of a century, by his lectures and writings and reports, done more than any inspector in this important work of education. They were proud to

have such a man preside over them on any occasion, particularly at an important Educational Conference like this. Last, and not least, of all the important works he had done, was the part he had taken in organising this Conference. He had been his colleague during the past few months in this work, and every time the Committee met, Mr. Fitch showed his fitness for the office he occupied, and therefore he had great pleasure in proposing a vote of thanks to him.

The Rev. H. L. THOMPSON seconded the motion, which was agreed to.

The CHAIRMAN, in returning thanks, mentioned the proposed visit to the new building of St. Paul's School near Hammersmith, one of the largest, and one of the costliest public schools, which had just been finished. It was easily accessible. He had arranged with his fellow governors that it should be open for the inspection of members of the Conference wishing to see it, and he hoped to put into the hands of any visitor a little pamphlet giving a sketch of the history of one of the oldest and the richest and the most interesting endowed foundations in England. They would not find it in full working order, because it was holiday time, and because the scholars had never yet assembled in the school, except once on a ceremonial occasion; but he thought the fittings and general plan of the building might prove interesting and instructive to the visitors.

GYMNASTICS AND OTHER PHYSICAL EXERCISES.

FRIDAY, AUGUST 8, 10 A.M.

Chairman: The Rev. T. GRAHAM, D.D.

GYMNASTICS AND OTHER PHYSICAL EXERCISES.

By JOHN HOLM, F.R.C.S.E.

THE physical development of the young is a subject of the highest importance, and hitherto, in modern times, has not received the attention it deserves.

Upon the health and strength of the body depends in the first degree the happiness and efficiency in life of both man and woman; but while it has been fully recognised that for the proper development of the mind, education was necessary, it seems to have been thought that the body would in some inexplicable way develop without any need of care.

It is true that instinct in the young has neutralised this neglect to a great extent. The constant motion in which children delight to indulge, their love of games and sports, do much to form them into healthy adults; but even this tendency of the young, especially in girls, is too often thwarted and repressed by injudicious parents and teachers.

As many fallacious notions are current in regard to gymnastics, I think it may be well that we should consider the object of a rational system of gymnastic training.

The one and only aim of the scientific gymnast should be to develop the human being to the highest degree of efficiency of which the individual may be capable. To accomplish this, the establishment of as complete harmony as possible of the body—of one part with the other—must be aimed at, and further than this, the relative harmony of mind to body must also be kept well in view.

Man has often been compared to a chain, inasmuch as he is only as strong as the weakest link. It is therefore irrational, as is too often done, to develop to an extreme degree parts already strong, neglecting those which are weak, and thus still further increasing the want of harmony already existing. In the same way, just as the mind may be over-developed and the body neglected ; equally may the body be over-trained and the mind left to remain fallow. Either extreme is bad, and that man or woman will be capable of the greatest degree of use in life, in whom the equal balance is maintained.

To accomplish this equal and harmonious development, it is necessary that the following points be observed :

First. All gymnastic exercises should be devised with a due regard to the structure and functions of the body, and should therefore be founded on an accurate knowledge of anatomy and physiology.

Second. That every exercise should have a definite aim, and be localised, so that its action be understood.

Third. That every part of the body should be exercised in turn, and having due regard to physiological function, not any one part in excess of another.

Fourth. That harmony of function, including suppleness, should be regarded as of equal importance with the mere development of muscular power.

Fifth. That all exercises, while directed to the development of strength, should be kept well within the vital capacity of the individual.

Having thus seen what are the essentials of a sound gymnastic system, it may be well to inquire how far these conditions are fulfilled at the present time.

There would not be time, neither is it needful at the present Conference, to trace in detail the history of gymnastics from ancient times. Suffice it to say, that we know from the classics and other evidence that the Greeks had a very perfect system. The Romans, to a certain extent, adopted this, but not in its entirety, nor in its best aspects. In the course of time, gymnastic exercises with them became more and more confined to the military class and the professional athlete, including the gladiator ; the natural consequence of which was decay and degradation of national tone ; the precursor of the fall of the Empire. Although from time to time men of thoughtful minds advocated the necessity of physical training ; apart from military exercises, but little attention was given to gymnastics, and it may be said that the modern revival did not gain much strength until the first decade of this century, when the teachings of Basedow, Saltzmann, and others, began to bear fruit, and the great German gymnasiarch, Jahn, popularised them in his country. About the same time, the Swedish gymnasiarch, Ling, commenced his labours, which resulted in the establishment of the Royal Gymnastic Central Institute at Stockholm, in 1813. The French gymnasiarch Amoros, was also working in the same field of labour, and laid the foundation of the French system. To a very great extent, although developing peculiarities of its own, it was founded on the German model.

For practical purposes, therefore, we need only consider the German and Swedish systems.

It is here right that I should avow myself a partisan of the latter system ; but a partisan only in this sense, that having devoted many years' attention to the results produced by gymnastics, I am irresistibly led to the conclusion of the immeasurable scientific superiority of Ling's Swedish system.

At the same time I give way to no one in my reverence for the memory of Jahn and of his predecessors, who rendered his work possible. Further, I believe his labours contributed to the production of that healthy national

feeling which freed Germany from the yoke of the first Napoleon ; and through the work of his successors, formed a most important factor in the causes which led to the success of the German arms in the late war between France and that country. I therefore recognise to the full that the German system has been productive of great good in developing manliness and strength. Its defects arise from the fact that it has rather grown bit by bit than been evolved as a system founded on a scientific knowledge of the human body. The consequence has been that arm exercise over that of other parts of the body has preponderated in far too great a degree, and that as a consequence the upper portions of the trunk, together with the muscles of the arms, especially the capsular muscles of the shoulder and the pectorals are developed out of proportion. Another effect of this preponderance of arm exercise is that undue strain is placed upon the heart and lungs, and that in all but the strongest—and sometimes even in them—a somewhat stooping rather than erect gait is produced. On the other hand, the trapezius, rhomboidei, and extensors of the spine, except so far as they are used indirectly or in climbing, are too much neglected, their more important physiological function of keeping the spine erect and the scapulæ drawn well backwards being almost overlooked. The respiratory muscles also are hardly ever called into play except by indirect action, and the legs are but seldom exercised sufficiently. The element of sensational display also obtains far too much, and many exercises are performed more for the sake of effect than for definite use. It is of course desirable that a healthy spirit of emulation should exist in man, but this, like other virtues, carried to excess may become a vice. The system also is not sufficiently graduated to be easily adapted to those who are weak—who are really those who are most in need of gymnastics. It is from these causes, as well as from injudicious instructors, that we hear of the bad results of gymnastics, and of the consequent prejudice which unfortunately exists in some quarters against gymnastic training, *per se*.

When Ling devoted his attention to the evolution of his system, he recognised that as a first necessity an accurate knowledge of anatomy was required. Having obtained this, and in addition studied the functions of the human body, he recognised the fact that rational gymnastics were not merely a question of muscular development, and that therefore to act equally throughout the body it was necessary that all parts should be brought into play, and thus equal circulation, distribution of nerve power, and nutrition be set up, without any part being over-taxed.

Ling's system thus became a complete one, and he divided gymnastics into four sections. The Educational, that division which comes under our cognizance to-day. The Medical, that dealing with the treatment of constitutional disease, and the rectification of deformity ; the Military, in which he evolved certain peculiarities in fencing with sword and bayonet—with neither of which we are now concerned ; and the Æsthetic. Under the latter division comes gesture, dancing, singing, elocution, &c., in regard to which arts no originality is claimed for Ling. In the educational and medical sections the exercises are so exactly graduated that they can be adapted equally to the feeblest as to the strongest ; or as Ling expresses : "In corporeal development, commencing with the simplest, you may gradually advance to the most complicated and powerful movements, and this without danger, inasmuch as the pupil has acquired a knowledge of what he is capable or not capable."

It is this adaptibility of Ling's system which, while equal to the needs of the strongest men, render it on the other hand peculiarly adapted for girls and women, and for those who are weak.

Now, while a sound system of physical education is in the highest degree desirable for both sexes, the want is not so urgent in the male as in the female, owing to the greater activity of the sports and occupations of the former. It has been wisely and truly remarked that "with the feebleness of the mother begins the feebleness of the man." But

apart from this important aspect of life, as affecting future generations, there is no need that woman shall be so physically weak, as she unhappily too often is. And this physical weakness, with the ill-health resulting, is, I am sure, the cause of much of the domestic misery which exists.

I have now briefly to consider the other physical exercises to which Sir James Paget gives the name of English gymnastics, and consisting of our national sports and games.

In Sir James's advocacy of these forms of physical exercise I am sure every gymnast of whatever school must join, and it is with great regret that I find so great an authority under the impression that the gymnast desires to abolish these. On the contrary, he welcomes them as aids to the end he has in view. But what we do say is, that they are not sufficient to rely upon to train the body to its full efficiency. They are indulged in irregularly, and the weak do not get an equal chance. The larger number of our games also exercise the right arm more than the left, and hence develop the body unequally—especially in those who are weak—and sometimes even produce spinal curvature. This danger is avoided when the body is coincidently being developed by the gymnast; and whatever the sport or game may be, it will be better played and more enjoyed, and therefore be of greater use, by those who have gymnastic training than by those who have not. Of this I am certain, that were a *rational* system of physical education to become general, good effects would speedily be manifested in the better health of the community; such conditions as spinal curvature and rupture would all but disappear, while the large class of illnesses, predisposed to, by the deficient circulation, manifested in cold hands and feet, so especially common in girls and women, would be greatly diminished.

As an illustration of the high importance in which sound gymnastic training is regarded in Sweden—as the result of seventy years' experience—it is interesting to consider the present organisation of The Royal Gymnastic Central Institute at Stockholm.

"This Institution was established by the Swedish Government in the year 1813, and has since been supported by annual grants of money; which, with the view of enlarging the Institute and extending its usefulness, have from time to time been increased.

"Ling himself held the Directorship of the Institute from its establishment until his death in 1839. He had specially pointed out Professors Branting and Georgii as the two pupils alone capable of carrying out his views, and was succeeded by the former, who continued to hold office until 1863, when having resigned, the Directorship was offered by the Government to Professor Georgii.

"Upon the retirement of Professor Branting from the Directorship, and on Professor Georgii declining the appointment; the Institute was re-organised, and the Government, more and more convinced of the value of scientific Gymnastics, both as an educational instrument and as an art of healing, proposed that the annual grant should be increased, and also that an additional grant for building purposes should be made. In this proposal the Diet acquiesced, and voted the necessary sums of money.

"The object of the Institute is the practice of the three great divisions of Ling's System of Gymnastics, and the education of properly qualified practitioners of the system in its various branches. For this purpose it is divided into separate departments, viz., the Medical, the Educational and the Military, each under the direction of a separate professor, assisted by a principal instructor and an efficient staff of subordinate teachers; who in the two former divisions are both male and female. It is required that the professor at the head of the Medical Department shall be a Physician, and over the Military Department an Officer of the Army.

"The control of the Institute is vested in a Board composed of a President and three members appointed by the Government. Of these members one must be a Doctor of Medicine, one a member of the Board of Education or a

Certificated Master of Public Schools, and one a Military Officer.*

"For such persons as desire to obtain the qualification enabling them to obtain appointments at the public schools, and under which alone they can practise Gymnastics in Sweden, a regular curriculum is prescribed. This course of study includes attendance on lectures on the following subjects :—Anatomy, Physiology, Pathology, and Hygiene, together with instruction in the theory and practice of Gymnastics, educational, military, and medical. The full course extends over three years, at the end of which time examinations are held on the various subjects taught, and certificates of proficiency granted. Physicians who may wish to obtain the necessary diploma to enable them to practice medical Gymnastics are exempted from so long a continuance of study, as well as from attendance on the various lectures on Anatomy, &c. ; they are merely instructed, and at the end of their course examined, in the theory and practice of Gymnastics as applied to the treatment of disease. In the case of the Commissioned Officers who are training for Army and Navy Instructors, as well as for those who only intend to practise Educational Gymnastics, the course of study as well as the examination are somewhat modified."

In conclusion, let me thank you for the kindness and forbearance you have shown me. What knowledge of the

* The following ladies and gentlemen at present constitute the higher Staff of the Royal Gymnastic Central Institute :—*Board of Direction*—President : Baron Leijonhufvud ; Military Member : Col. Count Adlersparre ; Medical Member : T. G. von Friesen, M.D. ; Educational Member : C. Curman, Ph. D. *Professors of the Institute.*—Medical Section : Professor Hartelius, M.D. ; Educational Section : Professor Ling (Fils) ; Military Section : Col. Nyblæus. *Sub-Directors and Instructors.*—Medical Section : A. Bergh, M.D. ; Robert Murray, M.D. (unattached) ; Miss von Zweigbergk ; Miss Liedbeck ; Miss Ling. *Educational Section :* Capt. Törngren, R.N. ; Lieut. Lindbohm ; Mr. H. Liedbeck ; Miss Öhman. *Military Section :* Major von Vegesack ; Capt. Silfversvärd ; Lieut. Balcke ; Capt. Haasum (2nd Life Guards ; unattached).

subject I have I owe to my late lamented friend and master Professor Georgii; in so far as I may have failed to convey my ideas, the fault is my own and the exceeding haste in which I have written this paper.

GYMNASTICS AND PHYSICAL EXERCISES.

By H. J. Wilson, J.P.

Ladies and Gentlemen, I came here rather to learn than to speak, and my name was put upon the notice paper perhaps without exactly my consent. I am not prepared with a paper, but I wish to make a few observations which I trust will be suggestive rather than instructive, and which may perhaps elicit some observations or some expressions of opinion that may be useful or helpful. My remarks refer particularly to elementary schools, elementary schools where there is not an ample supply of funds, and where we cannot get the apparatus which would be desirable for gymnastics properly so called. I want especially to point out the tendency that there seems to be to introduce purely military movements and military ideas in connection with the physical exercises of the elementary school. That is carried, in my opinion, to far too great an extent, and it has culminated in the suggestion by Commander Norman, that even the girls should meet Her Majesty's Inspector with a military salute, instead of a graceful feminine greeting. It is against this that I desire to enter my protest, and to suggest that we might do something better. I am not in a position to give any instruction of a technical kind, but I take it roughly that our aim in physical exercises, especially in the elementary schools, is the development of the lungs and limbs by proper exercise. If to that might be added teaching the children to be a little more

useful and handy, in the use of their hands especially, so much the better. We desire to teach them smart and prompt action, regulated by quickness of the eye. Then I desire most earnestly that we should make it, as far as possible, recreative in its character. I am not one of those who believe in a good deal of what we have heard lately, about over-pressure in the schools; and perhaps it will not be egotistic to say that as the Chairman of the School Management Committee of the Sheffield School Board, I do not believe that in that town the children suffer from what is called over-pressure; if anybody suffers it is the pupil teacher. But I do desire that these physical exercises should be, as far as possible, recreative, and tend to give the children not only relief in their school work, but furnish them with the means of increasing their enjoyment out of doors, whether it be in the streets, or in the public parks, or in playgrounds. In these schools we find that it is barely possible to provide apparatus; at all events public opinion is not at present prepared to go in for apparatus and instruments of various kinds. We have to see what we can do without them. The ordinary expansion movements for developing the arms, lungs and legs are excellent. I have nothing to say against them and nothing to teach about them. The bendings of the body in Dr. Roth's system are excellent, and I have nothing whatever to say in connection with them. Dumb-bells, in my opinion, are admirable. They involve a little expense, but not very much when they are bought in considerable quantities. But there are a few other things I would like to suggest, and I should like to know whether anyone here can help me to more of them. There is the exercise of the arms of the children by what is called, I think, by gymnasts, a stretch. The arms are stretched against a wall at a considerable distance, and the recovery is made by throwing the body up. That can be done without apparatus. It is done in the school buildings, and may be done against the playground walls. There is another exercise which I used to play at when I was a boy. I think if it were done in proper time it might

be done so as to make it interesting. If it is thoroughly well done it is decidedly well calculated to develop the arms and shoulders, and that is the very common exercise of one, two, three against your companion, and then the two, three, two, three, crossing the hands. I see that one or two here perfectly understand it. It is capable of being developed a good deal by the crossing of the arms and hands in various ways, and children in time get to do it with very great expedition, and enjoy it very much indeed. But it is when we come to the question of change of pace, from walking to running, and what is more commonly called drill, that the military idea comes in so very strongly. There are a great many people in this country now, and I hope the number is increasing, who do not desire to imbue the children with military notions, and I do not know that any one is prepared to justify teaching girls movements of various kinds which are of no possible use except as part of military movements. Those who are acquainted with the Continent will know how far the German schools are ahead of us in this respect, and what exceedingly interesting movements they have in the way of marching, and double columns of the children meeting and interlacing, and interlocking. When this movement has been executed in ranks of two, it is executed by ranks of four and eight, and where there is plenty of room it forms an exceedingly pretty exercise, and one which is of a very beneficial character. It teaches them smartness of eye, the habit of keeping time, and quick habits of mind, better than they can be learned by any system of merely military drill. There are also various circulating movements, such as the making of labyrinths in which children march in and out. These things can be developed in a great variety of ways. There is in Dr. Roth's book a very pretty exercise which he calls the Weaver's Run, done by a row of children walking four abreast straight across the room, three others interlacing and interlapping, which is a very pretty exercise indeed. Then there is the exercise of the Kindergarten, called Windmills, which is done by infants, and can also be done, and done better, by older boys and girls, being formed

into four rows of four, five, or even six children in each row, in the form of a cross, but all facing one way, so that they rotate like the arms of a windmill round the point where all the rows meet. Then let them march round with arms locked, afterwards taking hold of hands, and expanding the circle. If this is done in slow time, in quick time, and at the double with alternative expanding and contracting, that makes a most admirable exercise in training the children to keep their distance. I desire to repeat that my object is to teach people to save life rather than to destroy it. We know that there is a large number of persons drowned in the sea, and in our ponds and rivers and canals every summer, through indulging the desirable habit of bathing, a number of persons often standing by unable to render assistance, either because they cannot swim, or cannot swim in their clothing, of which there is no time for them to divest themselves. It is very easy to teach boys to make a chain with their handkerchiefs very quickly. By knotting the handkerchiefs, and then twisting them round the wrists of the boys, a chain may be formed which hardly any power can break. The connection could not be broken in an instant, as when holding hands in the water; it is a thing the boys can do immediately, and affords a means by which they may be able to save a number of persons from drowning.

Mr. SEVERN: Especially on the ice. People are frequently drowned through the breaking of the ice within two or three yards of the shore.

Mr. WILSON: Especially on the ice, as my friend, Mr. Severn, very properly suggests. If I remember rightly, a year or two ago some one was drowned in one of the London fountains, with a crowd of people looking on. The same thing might, perhaps, be done better still with cords provided for the purpose, but I would prefer to teach the children to do it with their pocket-handkerchiefs, or with the neckscarves they commonly wear, which will make even a longer chain than the pocket-handkerchiefs. I think there are other games, which are distinctly games, which might very well be done in time, and which partake of the nature

of drill. I think the common games of "follow my leader" and "hop-scotch" might be managed in an orderly way. By means of the "tug of war," performed under proper restrictions, both boys and girls might learn to use their hands, and how to put out their strength when they required it. I think that is all I have to say upon this subject, but if it leads to any one giving an opinion which shall lead to making the physical exercises of elementary schools more attractive than they generally are, I shall be exceedingly gratified to have had this opportunity of addressing this audience.

The CHAIRMAN (Dr. Graham) said that Major-General Eaton, Commissioner of Education for the United States, had a paper from which he would like to read portions. He was sure they would accord to him as hearty a welcome as they had given to all the foreign delegates. They did not, however, look upon the inhabitants of the United States as foreigners, they being really our own children.

Major-General EATON: Mr. Chairman and Gentlemen, I shall certainly accept with pleasure on behalf of the people of the United States the relationship of children with which you are pleased to greet us. We ourselves always speak of the mother country. We are always looking to her for instruction, and it gives me great pleasure to come here this morning to receive instruction. Your Chairman has kindly said that I have a paper. I certainly have a paper. The office that I have charge of receives reports from every part of the United States with reference to the different schools and colleges for the dissemination of the different grades of instruction given to all classes; and we carry on many investigations. Just now the subject of physical education, the hygiene of education,

is interesting the American people deeply; and it becomes my duty to institute in all directions scientific inquiry, if possible, upon our own lines, and in pursuance of this duty I have recently selected a professor of hygiene, and I have drawn up a whole series of questions, which we have in this paper, touching the whole subject of hygiene in our college. I will now proceed to describe the difference between an American college and a college such as you have in England. These institutions have been the main centres of superior instruction in America for many years, but we look to them for examples; we look to them for the application of correct principles, and in this respect they have been leading the way for a series of years. As has already been intimated, we originally inherited what we have, and our superior instruction came from yourselves, being modified, of course, by the conditions of a pioneer country. Harvard University at Cambridge was our first great educational establishment. Of course, it was very small in beginning, but it took on a certain type of the education then in existence in England, and for a time it was the concentration of effort of intellectual training. The body was comparatively ignored, but, you know, the religious idea of the period was, that it was right and proper to crucify the body, and to absolutely subordinate it to the spiritual condition. It was so in our country as in other parts of the world. But in 1825 there began to appear in these institutions a consciousness that the body must have a certain recognition in education, and the first president of a college in New Hampshire, which was founded largely by means of English funds, alluded to this necessity in the course of superior instruction. But little, however, was done until this thought began to present itself in connection with the industrial education of the country. The largest part of our population was in the rural districts, and the boys and girls, for our schools received both sexes, were accustomed to much exercise. They walked a long distance from home to the school, and assisted their fathers and mothers in farming, both before school hours and after, either in caring for the stock, in providing wood for the

fire, in running errands, in many other things ; and this state of things exists very largely to-day with the rural population. So that the thought to which you are giving attention to-day is not very much considered in our country schools, as we call them. Indeed, the air is so good, and everyone is out in it so much, that even the healthiness of the school is not always cared for as it should be, but we are making great efforts to improve the architecture of our rural schools as an aid towards this healthful education. Some fifty years ago the thought arose within the young men of the cities, who were struggling to secure an education, that by industrial education, that is to say, manual labour, the young man could improve his health of body and, at the same time, earn the money to pay his expenses ; and a multitude of such institutions spread over the land. But this movement had in it a fatal fallacy, namely, that a person could do at once the work of two ; that he could do the work of a man by labouring with his hands while he was also labouring with his brain, and it fell through ; and the effect of that failure upon the public sentiment of the country was to discourage all movements in this direction. But at last a general growth of knowledge on the subject of hygiene, and an acknowledgment of its necessity, having regard to the effect of intellectual training upon bodily health, led one man after another to devise processes of aid. There came to us from Germany the gymnasium, and it spread over the country, in our villages and our cities, and here and there in connection with our schools. These exercises had at that time little reference to any scientific code in the direction of health, but they were undertaken as a relief, from a consciousness of the need of activity and with a belief that they would strengthen the system. Now, out of this impulse there spread a great variety of ideas. It went into the colleges to some extent, and they began to provide gymnasia and playgrounds, and games were quietly introduced, such as are well known in this country, but which have never been so extensively practised amongst us as amongst your young men in England. Now, I am only describing generally. There were certain

minds who thought that this impulse, this movement, should be brought to the notice of teachers. One very noted teacher felt that the health of our women was injured by the growth of evil habits with reference to dress, with reference to labour, and with reference to fashion, and she commenced a movement in her school to counteract this, comprising certain light gymnastics, as they were called, and in her school at South Hadley, which has been known the world over by reason of its remarkable influence upon female education, she began to give her young ladies an hour's work in the house every day. After a while she introduced certain light gymnastics, and as these people were very severe upon what they regarded as worldly sins, they adapted their movements to their ideas of health without involving the wickedness of dancing. In fact, it was sometimes called orthodox dancing. The young ladies who were trained in this school went abroad in the land disseminating these ideas, and other schools were established. The movement had little scientific or philosophical direction until very recently, and this paper describes it very fully; I should do great injustice to the paper to attempt to read it. I have it for the use and benefit of this Conference, to print or not, as it may see fit in the future ; but I may say a very few words about what the paper describes. In America, you know, we are intense, and our nervous activity is very great. Life is fast, and the growth of intellectual training in the higher institutions was connected every now and then with a breakdown. At last the various suggestions, drawn from different parts of the country in reference to Kindergarten, and with reference to the theories of education, began to take definite form, and Professor Hitchcock established a gymnasium, and the training became systematic. It was not, however, entirely satisfactory, and later on Dr. Sargent was selected to take charge of it. Having studied the matter for several years, he devised gymnastic appliances, and now when the young man goes to Harvard he is examined physically, as he would be examined for admission to the army or the navy, and his measurements

and records are all made and preserved by this Professor of Hygiene, Dr. Sargent; and he is not allowed to engage in any athletic exercises that it might be supposed would be injurious to his physical condition. He cannot engage in athletic games or take exercise in the gymnasium without being permitted by Dr. Sargent. Now, of course he has, in his system, something of the system which is used in the London School Board, which is well known in your country. The whole muscular action has been so thoroughly studied that the teacher is able to suggest the action of the muscle which will be best adapted to overcome the weakness of the child. This knowledge is used both for school purposes and for the cure of disease, but we have only to do with school purposes. These exercises are generalised for the class or the school, and for the young men in the university, this specific direction being also always kept in mind, that if a man or a boy has a defect of chest, and his lungs are weak, he has a specific prescription for the use of certain parts of the apparatus, or the performance of certain exercises, just as though he were in charge of the doctor for his health. This movement has been taken up at numerous other institutions, and is now becoming a regular accompaniment to superior education, not only for young men, but also for young ladies. At the present moment, I notice amongst the audience one who is a genius amongst our teachers, a doctor of philosophy at one of our female colleges, and it might be pleasant for you if she would state from her own standpoint, and from her own observations, something of what is done in this direction for the superior instruction of women. I allude to Miss Freeman, the President of Wellesley College for Young Ladies. But before I leave the subject, perhaps it may be proper for me to say one word in regard to the line of thought which Mr. Wilson was disclosing to us. Out of this grand movement to which I have alluded, and at the principles of which I have only hinted, the Kindergarten has come as something distinct, something clear and well defined in its ideas. This system takes the young children at a period

when they are most in need of careful instruction. Yet this is a period about which we in America, and I regret to hear you in England, and the rest of the civilised world, know very little. I am astonished when I go to the medical profession for aid and guidance and help in my views about this particular department of education to find how little they know about training an infant in health. They have wonderful skill in curing disease, in checking the colic, and in extracting the teeth ; but when the young father and mother, anxious about the first child, seek for guidance, where shall they go for it ? I have gone in vain to some of the most eminent of the medical profession. At present we have the Kindergarten, which has been evolved by its great founder from the study of the child itself, not only in regard to his sensibilities, his mental conditions and powers, but also his physical. We know from experts that sometimes the brain does not mature until ten years of age, and then exercises of the Kindergarten are especially adapted to his health. In regard to health one element is very important. I have noticed in my observations throughout the country that the child should not be too long confined to any one thing. I remember very well when I was administering the public school system my study of children led me never to permit them to be still, and never to be engaged in any one thing for more than fifteen minutes, and this alone had much to do with their health and intellectual progress. Further, I saw the necessity of being particularly careful about the conditions of the atmosphere to which the child is exceedingly susceptible, possibly more susceptible to atmospheric conditions and influences than the adult. These general considerations have come into this new movement, and studies have been made in regard to the hygiene of school buildings. We have many that are very badly arranged, and I have seen many in Europe also that are very bad. We have still much to do to change our buildings, and to put them into proper condition, and so with our playgrounds. Now, we are a new

country. Land is cheap, and it is astonishing how very poor the Boards of Education seem to be when they have to buy land in the city to provide school-houses for the children. Instead of giving them ample playgrounds, which can be done easily, they give them literally no playgrounds at all ; and in a prominent and excellent school in a large city that I once visited, there was so little space for the movements of the boys and girls, that when recess time came they were ranged in rank and file, with their teachers and officers, and had to remain so until school re-commenced. These movements are all very well and useful to health, but there should be larger freedom when recess time comes. Great discussion has taken place upon the subject, and an earnest disposition is manifesting itself in the cities in regard to it, but while no uniform system is adopted, as in our colleges, great improvements are going on. Many teachers are making a special study of this subject, but the movement as I have indicated has taken very little hold upon the country as yet. Still in the cities you will find many convenient schools, with the light coming in from a proper direction ; the change of air frequent and abundant, the playgrounds ample, and the general care on the part of the teacher, which was always essential, was well exercised. I should be very happy to introduce you to many of these schools. In some of these schools they have some simple apparatus for the exercise of the children. Some of them are very delightful, and afford relief after the day is concluded. If it is one of those days upon which the weather inclines to melancholy and suicide, a song, or five minutes of these exercises will dispel the disposition to suicide and insanity, and give new life and new energy, not only to the pupils but to the teacher, and in spite of the clouds there will come in a flood of sunshine which will bless every soul. I believe myself that the teacher who aims especially and supremely at good moral training, cannot overlook the physical condition. As I have before intimated, it must always be remembered that the child is peculiarly susceptible to physical conditions, and it often happens that his

roguery or his wickedness is entirely traceable to a physical cause which may be removed by the teacher. Leaving now the general body of young children with fairly comfortable homes, and coming to consider the degraded class, and those who have to be dealt with under very extreme conditions, as in reformatories or asylums, I think that their physical condition should be one of the very first considerations. The child must not only be taken out of his filth and provided with good food, but all the other conditions of physical health must be considered if his education is to be salutary in its general effects. I may add the general remark, which should not be overlooked in connection with what I have said—as there are two sides to everything we take up, so there have been two sides taken upon this subject in America. We have had those whose aim it has been to develop strength, and who want the child only to show increase of strength. If he is a man, say the followers of this school of thought, he must increase his power of lifting, and the whole idea involves giving power of muscle; if to-day the muscles endure a certain strain, to-morrow they are expected to do so much more. These excellent people illustrate their meaning by the story of the man who in ancient times began by lifting a calf and ended by lifting the ox. One of the leaders of this particular school was Dr. Smith, a man of fine physique, and a man who acquired prominent success according to his ideas. He came in time to lift enormous weights with his hands, and to sustain enormous weights, such as an anvil on his chest, astonishing us by the results of his efforts. But what was the effect? It killed him prematurely, and this was the general result of that movement, which is now passing to a correction. Yet now and then we still see some failure connected with it. Some time ago I was visiting one of our most eminent and important and excellent colleges for women, which are so fast developing in our country. I had some foreign friends with me, and the president showed me as we walked along how he had made certain changes. The most important

were in the gymnasium, which is in charge of a doctor of medicine, who has, however, made the very mistake which I have just pointed out. When we came to the gymnasium the president said, "You see we have removed all these foolish light wooden dumb-bells, and we have procured heavy iron dumb-bells." So that here this fatal mistake was made under the direction of a doctor; he understood better how to cure pain than to develop a healthy education. The modern tendency in America is in the direction of lighter gymnastics, and the belief that it is not the weight we lift, but the action of the muscles, the exercise which is beneficial. But as I find I am now in an almost unlimited field of controversy, I will conclude by thanking you, Mr. Chairman, for having permitted me to address these few remarks to the meeting.

THE RISE OF COLLEGE GYMNASIUMS IN THE UNITED STATES.

By EDWARD M. HARTWELL.

MONTAIGNE has well said: "Our work is not to train a soul by itself alone or a body by itself alone, but to train a man; and in man soul and body can never be separated." In accordance with a more or less clear apprehension of this idea, a considerable number of colleges and universities in the United States have established departments for the systematic training of the body. In connection with these departments gymnasiums and playgrounds have been provided, as well as lectureships on personal hygiene. In several instances the heads of these departments are college-bred men, who have taken also a medical degree; and it is their business to counsel and direct students in regard to exercise and regimen, such counsel and direction being based upon a careful examination into the peculiar needs of each individual.

It is the main object of this paper to describe the aims and methods of the best organised of these departments of physical training, after a preliminary historical sketch of the growth of this branch of educational work in the United States.

In order to understand why the claims of the body have been so often ignored or contemned in collegiate and university education, it is necessary to recall briefly some of the doctrines concerning the nature and relations of body and mind. Educational schemes have been contrived and administered too often by men who believed that body and mind were distinct entities at war with each other.

The Greeks, indeed, with their keen insight into the laws of symmetry and their surpassing love of the beautiful, recognised the worth of bodily as well as of mental perfection. Careful nurture and training of the body played a very considerable part in the education of Grecian youth ; in the education of the schoolboy and the university pupil no less than in that of the soldier and the professional athlete.

Although the early fathers of the Christian Church viewed with horror and detestation the gladiatorial sports of the Pagans, yet as defenders of the faith against the heretical doctrines of the Manichæans and Gnostics they could not do otherwise than champion the dignity and worth of perfect or at least perfectible bodies. But, under the nfluence of those saints, who looked and longed for the speedy extinction of mankind and the end of the world, during the first thousand years of our era, the most debased asceticism gained sway : and mortification of the flesh, to the extent of rendering the body enfeebled and impotent, was preached and practised as a means to attain to mental and moral excellence. It was distinctly held that bodily weakness was a prime requisite to mental strength and to the soul's salvation.

With the Renaissance and the rise of chivalry came a sharp challenge of the monkish ideal ; and though bodily exercise, as a means to secure grace, vigour, and skill came to be deemed indispensable to the education of all youths

of gentle blood, still ecclesiasticism was too dominant in the colleges and universities for the enlightened care of the body to form any considerable part in the training of a scholar. Knightly exercises found but little favour with the heads of colleges, and "honest sports," far from being promoted, were scarcely tolerated by them.

In modern schemes of education the part allotted, or allowed, to bodily training and to recreation has been determined chiefly by the dominion, exercised, singly or in combination, over the minds of Faculties and Boards of Trust by the Greek, the monkish, or the knightly ideal of manly excellence. The Germans, under the lead of Gutsmuths and Jahn, the father of the famous Türnvereins, have been enamoured of the example of the Greeks, and have striven in an elaborately systematic way to embody Greek gymnastics in modern forms. France, apparently out of respect for Prussia, has recently given physical training a prominent place in its revised educational code.

In England, where there is more or less of aversion to systematic efforts to train the bodies of scholastic youth, gymnasiums exist chiefly as private ventures or in connection with the recruiting service of the army; they are but rarely maintained or regulated by the great educational foundations. Certain national sports are considered by the educated classes to be an important factor in British supremacy; and, in spite of the marked survival of medieval ideals and forms in the organisation and administration of Oxford, Cambridge, and the Public Schools, chivalric notions as to bodily force and grace are clearly traceable in the sober passion of the British schoolboy and undergraduate for athletic games and manly sports; which, it should be remembered, are regulated almost entirely by the force of custom amongst the pupils themselves.

In the United States, prior to 1825, there was little if any interest in anything akin to gymnastics for students. American educators were ruled largely by British, and in a measure by Puritan notions as to curriculum and discipline; and American collegians, those of them who were not too

serious to play, disported themselves after inherited British fashions.

The first President of Dartmouth College, at Hanover, New Hampshire, Dr. Wheelock, "earnestly recommended," in 1771, the year the college was founded, "that they" (the students) "turn the course of their diversions and exercises for their health to the practice of some manual arts, or cultivation of gardens and other lands, at the proper hours of leisure and intermission from study and vacancies" (vacations) "in the college." When Amherst College was founded, at Amherst, Massachusetts, in 1821, a large field was bought "for the express purpose of affording each charity student an opportunity of cultivating a quarter or half an acre of land in that manner which his taste and judgment shall dictate." "This," it was said, "is an advantage which Amherst College will have over all the other colleges." In 1828 the Amherst students' petition for a bowling-alley was denied by the faculty for the following reasons: "The noise which is inseparable from this game would probably occasion a serious disturbance to the occupants of the college buildings. This game, though in itself innocent and healthful, has so often been perverted to idleness and dissipation that the public would not justify us in introducing it among the exercises of the students." In another New England college, the faculty used to grant the students a full holiday, once a year, on the condition that they would devote it to regravelling the college walks, "for the purpose of forming in the student the habit of physical exercise so essential to vigorous mental exertion." There seems to have been a widely held opinion that exercise for the sake of recreation was "too vain, idle, and flesh-pleasing" to be tolerated.

Gymnastics were introduced into the United States by German exiles. Dr. Follen, Dr. Beck, and Dr. Francis Lieber were foremost in evoking what proved a transient interest in gymnastics. The Round Hill School at Northampton, Massachusetts, seems to have been the first institution in the country to make gymnastic exercise a part

of the regular instruction. In its playground, in 1825, a gymnasium was set up under Dr. Follen, who planted a similar one in 1826, in the "Delta," which was the name then applied to the Harvard College playground in Cambridge, Massachusetts. In 1826, also, Yale College, Connecticut, was provided with a gymnasium on the college green, at a cost of $300. At Amherst College, and elsewhere, similar gymnasiums were constructed out of doors, in bald imitation of their Græco-German models. The New England climate was not favourable to such gymnasiums; competent instructors were lacking, proper regulations were not enforced, and so the Græco-German gymnasium fell into disrepute, disuse, and decay. The longest lived specimen of this class of gymnasium seems to have been that erected in 1851 or 1852, at the University of Virginia. It remained popular with the students until the outbreak of the civil war ten years later. For its use, "with systematic instruction by an accomplished gymnast and instructor, students were required to pay a small fee. The effect in producing a systematical muscular development, and in promoting the good health of the hard brain-workers, candidates for collegiate honours, was most manifest. In connection with the gymnasium was a house for giving Russian or hot-vapour baths, open one day every week."

In 1856, through the endeavours of a few students of the College of New Jersey, the first college building devoted exclusively to gymnastic purposes was built in Princeton, N.J. The structure, as becomes an embryo, was a small affair. It was a "single-boarded structure of wood," and was painted red "that," as its historian tells us, "it might resist the storms of Heaven as its founders had resisted the objections of an unpropitious faculty." It remained a "stoveless shanty" till 1860, when a stove and a new set of apparatus were put into it. In 1865, during the summer vacation, the people of the town reduced it to ashes, on account of a report that a tramp sick with yellow-fever had slept in it over-night.

Amherst College, situated within ten miles of the site of the original Round Hill School Gymnasium, was the first college in America to establish a department of physical culture. This it did in 1860. That it did so was chiefly owing to the wise suggestions and zealous endeavours of the late Rev. W. A. Stearns, D.D., then its President. President Stearns had argued, in 1851, on the occasion of his inauguration, "That no course of education is complete without devoting special attention to secure a good development and healthy state of the physical system." He returned again and again to the subject in his annual reports to the trustees of the college. In his report for 1859, President Stearns said: "By the time Junior year is reached, many students have broken down their health, and every year some lives are sacrificed. Physical training is not the only means of preventing this result; but it is the most prominent of them. If it could be regularly conducted—if a moderate amount of physical exercise could be secured as a general thing to every student daily, I have a deep conviction, founded on close observation and experience, that not only would lives and health be preserved, but animation and cheerfulness, and a higher order of efficient study and intellectual life would be secured. It will be for the consideration of this board, whether for the encouragement of this sort of exercise, the time has not come when efficient measures should be taken for the erection of a gymnasium, and the procuring of its proper appointments." He concluded with the statement that two of the most promising students in the senior class had just died, and that their deaths had probably been occasioned by the violation of the laws of health during their life in college. Other students, moreover, were fast breaking down their constitutions and seemed likely to follow them.

The trustees acted immediately, and voted that it was expedient to erect a suitable gymnasium: and, provided a certain amount could be raised by subscription, they recommended that an equal amount be appropriated for that

purpose from the treasury of the college. The result was, that a building of stone, two stories high, fifty by seventy-two feet, was completed in the summer of 1860, at a cost of $10,000. An additional sum of $5,000 was expended for its apparatus and fittings. It contained on the ground-floor two dressing-rooms, an office for the director, and four bowling alleys. The second floor contained the gymnasium proper, a well-lighted hall open to the roof.

Having finished the gymnasium, the Amherst trustees voted: "To establish a department of physical culture in this college; and that the duties of its Professor shall be: 1st. To take charge of the gymnasium, and give instruction to the students in gymnastics. 2nd. To take general oversight of the health of the students, and to give such instruction on the subject as may be deemed expedient, and under the direction of the Faculty like all other studies. 3rd. To teach elocution so far as it is connected with physical training. 4th. He shall give lectures from time to time upon hygiene, physical culture, and other topics pertaining to the laws of life and health, including some general knowledge of anatomy and physiology. 5th. The individual appointed to have charge of this department shall be a thoroughly educated physician, and, like other teachers and professors, shall be a member of the college faculty. It is distinctly understood that the health of the students shall at all times be an object of his special watch, care, and counsel." J. W. Hooker, M.D., and a graduate of Yale College, was appointed the first professor of hygiene and physical education. He was forced by ill-health to resign his position before he had held it a year; and E. Hitchcock, M.D., a graduate at Amherst and of the Medical School of Harvard University, was appointed on August 8, 1861, to the vacant professorship. Dr. Hitchcock still holds the position.

Originally all able-bodied students were required to practise both light and heavy gymnastics; but after a few years' trial it was decided to require practice only in the light gymnastics. Each of the four classes meets at an appointed hour in the gymnasium four times weekly, for

31 weeks. The required exercise consists of a series of concerted movements made with a pair of wooden dumb-bells, weighing a pound each. The movements are executed simultaneously by the entire class, their "time" being regulated by the music of a piano. The class exercise occupys from twenty to thirty minutes ; such as choose to may then exercise upon the heavy gymnastic machines. Each class has its distinctive uniform, consisting of a loosely fitting shirt and trousers of heavy flannel ; and no member of the class is allowed to engage in class exercise without his uniform. In 1881 Dr. Hitchcock published a "Report of Twenty Years' Experience in the Department of Physical Education and Hygiene in Amherst College." It contains a full account of the organisation of the department, and the means employed to secure the interest and attendance of the students. It is only possible to refer here to the claim set forth therein to the effect that the Amherst system has proved itself equal to improving the carriage, physique, and health of the students trained under it ; and to note the fact that certain interesting anthropometric observations have been regularly made by Dr. Hitchcock since 1861. "In the fall of 1861," he says, p. 8, loc. cit., "I took measurements of all the college students in seven particulars, and have faithfully made these examinations of almost every sound man since connected with the college. The measurements are made of the freshmen soon after entering, and are repeated upon them near the end of each year of the course. Thus every man who goes through college has been observed five times. These observations during the first year were the age, weight, height, chest girth, arm girth, fore-arm girth, and body lift. The second year the capacity of the lungs was added, and for the last five years the finger reach and the chest expansion, and for the last two years the comparative strength of the two hands." Six highly interesting statistical tables are appended to the report. It should be said that the duties of the professor are still substantially there laid down by the trustees, except that he does not teach elocution.

At least $100,000 were spent between 1860–1870 in building and furnishing college gymnasiums in the United States.

LIST OF COLLEGE GYMNASIUMS BUILT 1860–1870.

The Gymnasium at Amherst College was built in				1859–60		for	$ 15,000
„	„	„	Harvard University	„	„ 1860	„	10,000
„	„	„	Yale College . .	„	„ 1860	„	13,000
„	„	„	Dartmouth College	„	„ 1866	„	2,4000
„	„	„	Princeton (College of New Jersey). .	„	„ 1869	„	38,000
„	„	„	Wesleyan University	„	„ 1863–4	„	..
„	„	„	Washington	„	„ „	„	7,000
							$107,000

Williams College, in Massachusetts, Bowdoin College, in Maine, Vassar College, for women, in New York, each fitted up gymnasiums during this period in buildings since devoted to other purposes.

No one of the colleges mentioned in the list given above established its department on so broad a basis as that at Amherst; and no one of them has contributed as much towards the solution of the problem how best to promote physical education for students. None of them required so much of stated exercise, while most left it to the student's option whether he would exercise or not; none had an educated physician as the head of the department, the general usage being to instal a mere professional athlete as teacher of gymnastics. Physical examinations of the young men were generally neglected, and very little was even attempted in the way of determining the peculiar kind of exercise an individual might need; and instruction in physiology and hygiene was not usually insisted on.

In many colleges, especially in those which received funds from the Federal Government under the Land Grant Act of Congress, passed in 1862 for the purpose of encouraging "such branches of learning as are related to agriculture and the mechanic arts," military drill was intro-

duced. Military drill also became a popular feature in many schools and academies.

The experiences of the civil war taught American thinkers and educators more than anything else had ever done, the worth of a good physique; and contributed not a little to awaken an interest in gymnastic training and athletic sports. In 1869 the gymnasium of the College of New Jersey was built at a cost of $38,000; and for ten years it remained the finest structure of the kind in the country. It was put in charge of a very accomplished gymnast and acrobat, who has proved a most successful teacher in his specialties, and in general gymnastics as well.

In the period from 1870 to 1880 inclusive, the following named colleges built gymnasiums :—

				$
Beloit College, in Wisconsin,	built one	in	1874	for 4,000
Newton Theological Institution, in Massachusetts . . .	„ „	„	1876	„ 4,000
University of California, in California	„ „	„	1878	„ 12,000
Vanderbilt University „ Tennessee	„ „	„	1879	„ 22,000
Harvard University „ Massachusetts	„ „	„	1879	„ 110,000
University of Wisconsin „ Wisconsin	„ „	„		„ 5,000
Pennsylvania College „ Pennsylvania	„ „	„	1880	„ 3,000
				$160,000

It was not until 1879 that any marked advance was made beyond the principles embodied in the Amherst system of physical training. That advance was made when the Sargent system of developing exercises was introduced into Harvard University on the completion, in 1879, of the Hemenway gymnasium, which is by far the finest in the United States.

The Hemenway gymnasium, at Harvard University, is named after Augustus Hemenway, Esq., of Boston, Mass., and a graduate of Harvard in 1876, who gave $110,000 for the erection of a new gymnasium.

A description of it, condensed from the "Harvard Register," is subjoined :—"The building is built in the colonial style of architecture, of brick with trimmings of sandstone. The roof is covered with red slate, and is sur-

mounted by a cupola, the top of which is 98 feet from the ground. The building is 125 feet long and 113 feet wide. Over the main window, the coat of arms of the college is carved in freestone. The exterior is very attractive, and is a great ornament to the city of Cambridge. The main entrance is by way of an elaborate porch. There is an outer and an inner vestibule. From the latter is a flight of stairs made of North-river bluestone, with iron balusters. On the right is a reception-room finished with enamelled bricks. Opening from this room is a dressing-room 103 feet long, with numerous lockers, through which steam pipes pass for drying the clothing. On the same side of the building are two large bath and toilet rooms; and between these is a room arranged for vapour and needle baths, with appliances for giving a lateral, vertical, and descending shower. Three doors open from the dressing-room into the main hall, over which extends an iron framework arranged with sliding eye-bolts and beams, so that the swinging apparatus can be suspended from any point. On the left side of the hall is an apartment for developing apparatus, and a semi-circular room intended for an armoury. The main hall is very elegant, the walls being of red and yellow bricks, and the woodwork of hard pine. It is 113 feet long, and in the widest part 90 feet wide, with an open roof, having hard-pine open-timbered trusses resting on large brackets. On the second floor there is a room for the exhibition of trophies and for committee meetings, and also the rowing room, shut in by a high wooden screen, and containing sixteen rowing machines. Around the hall is a gallery which can be used as a running track. On this floor is the office of the director, the measuring room, the janitor's room, etc. In the basement are eight bowling alleys with suitable appurtenances. The whole north end of the basement under the main hall is reserved for base-ball, lacrosse, and tennis practice, and is enclosed by heavy wire netting. In the basement are also sparring and fencing rooms, and a boiler and store room. The whole building is heated by steam and thoroughly ventilated."

Concerning the apparatus introduced into the Hemenway gymnasium, Dr. D. A. Sargent, its inventor, and the director of the gymnasium, says: "Everything has been planned and arranged to meet the probable wants of the average student, and to satisfy the claims of the greatest number. The old-fashioned gymnasia are filled with crude appliances that have been handed down in stereotyped forms for several centuries. To use this apparatus with benefit it is necessary for one to have more strength at the outset than the average man possesses. When it is considered that only one man in five can raise his own weight with ease, the need of introducing apparatus to prepare one for the beneficial use of the heavy appliances becomes quite apparent; it was the realisation of this need that led to the invention of the numerous contrivances that have been introduced into the Hemenway gymnasium; the desire to strengthen certain muscles, in order to accomplish particular feats on the higher apparatus, was the original motive of these inventions. The results which followed were so satisfactory that the same appliances were afterwards used as a means of attaining a harmonious development. For this last-named purpose each machine has its own use. Each is designed to bring into action one or more sets of muscles, and all can be adjusted to the capacity of a child or of an athlete. Easy adaptation to the capacity of the individual, and facility of application for remedying local defects and weaknesses, are the distinguishing characteristics of the apparatus. Local defects and weaknesses are only to be discovered through physical examinations. By means of these examinations the physical condition of the individual is accurately ascertained. The relative proportions of the different parts of the body; the undue development of certain muscles, and the relaxed and enfeebled condition of others; the comparative size of body and limbs; variations of height, breadth, weight, and muscular strength, from the normal standard for a given age,—must all be taken into account in prescribing any useful course of physical training. This information,

together with a variety of facts concerning personal history, bone and muscle measurements, and acquired or inherited tendencies to chronic or functional disease, shows at once the immediate needs of the person under advice. These needs having been ascertained, the proper amount of exercise on the proper machines is then prescribed.

The chief characteristics then of the Sargent system of training as originally introduced at Harvard, are :—

1. It is based on careful physical diagnosis.
2. Exercise, diet, etc., etc., are prescribed in the light of such physical diagnosis.
3. Besides the ordinary light and heavy gymnastic appliances, machines designed to produce certain definite localised effects in development, can be employed to insure symmetry, and remedy specific defects, or departures from the normal standard of strength or development.

It may be well to remark in passing that the anthropometrical observations made at Amherst were not used to determine the needs of the individual examined ; that every member of the class was subjected to the same kind of exercise ; and that the Sargent system of measurements has been adopted at Amherst.

Since the opening of the Hemenway Gymnasium, the Sargent developing appliances have been introduced, in larger or smaller quantities, into more than thirty gymnasiums, of which ten belong to colleges, and of these again two are colleges for women. There is also a demand, in excess of the supply, for competent men and women to take the position of director in gymnasiums already established. Persons are desired who have had the advantages of a college as well as a medical education ; as the head of the newer departments of physical education is expected to lecture on physiology and hygiene. Dr. Hitchcock and Dr. Sargent both lecture to their students on these subjects. Harvard and Amherst are the most highly-organised of all American colleges as regards the departments under con-

sideration. The old gymnasium at Amherst has been outgrown, and a new one, planned and equipped after the Harvard model, has nearly reached completion. Its total cost will amount to about $77,000. At Cornell University, and also at the John Hopkins University, a department of physical training has been established, during the last year, and at each a physician has been put in charge; and at each also the Sargent system is in vogue.

One principal aim of the new system is to utilise the results of the physical examinations, made for purposes of diagnosis, as a means for determining the normal physical constants of growing men and women. A great mass of data has been accumulated by Dr. Sargent and his followers, and it is to be hoped that it may soon be available for publication and discussion.

LIST OF COLLEGE GYMNASIUMS BUILT 1880–84.

			$
The Gymnasium at		Smith College, built in 1880-81 for women	4,000
„	„	„ Kendal Green, Washington D.C. for deaf-mutes, built in 1881 .	14,600
„	„	„ Lehigh University, built in 1882	40,000
„	„	„ Cornell University, „ 1882-83	40,000
„	„	„ University of Wooster, built in 1882-83	4,200
„	„	„ Mass. Agricultural College, built in 1883*	6,000
„	„	„ John Hopkins University, built in 1883	10,000
„	„	„ Tufts College, built in 1883 . .	10,000
„	„	„ University of Minnesota, built in 1883-84*	34,000
„	„	„ Amherst College, built in 1883-84	77,000
			$239,800

Within the same period several colleges and high schools have fitted up gymnasiums and drill halls, in buildings par-

* Used at present for military drill.

tially devoted to purposes other than those of physical training, viz. :—

	$
Boston University, for both sexes. Expended in 1882	2,500
Wellesley College, for women „ „ „	1,200
Public Latin and English High Schools, for boys, Boston. Expended in 1881	1,500
Haverford College, for men. Expended in 1880-81 .	1,900
	$7,100
Making the total for 1880–4 . . .	$246,900

LIST OF COLLEGES NOW BUILDING, JULY 1884, GYMNASIUMS.

	$
1. Dickinson College, in Pennsylvania, estimated at	11,000
2. Bryn Mawr, for women „ „ „	20,000
3. Lafayette College „ „ „	10,000
4. Kenyon College, in Ohio	
5. Penn. Charter School, in Pennsylvania (Philadelphia)	
6. Carleton College, in Minnesota	
	41,000
Estimating the cost of new gymnasiums 4, 5 and 6 at	10,000
	51,000

Total expended on gymnasiums, 1860-1870 . . .	107,000
„ „ „ „ 1870-1880 . . .	160,000
„ „ „ „ 1880-1884 . . .	246,900
„ amount of estimated cost of gymnasiums now building	51,000
Grand total for period from 1860 to date . . .	$564,900

It may be said that a large proportion of the better class of institutions, classed as colleges and universities, in the United States, are already provided, or are about to be provided with gymnasiums. Thus far it has been much easier to secure buildings, apparatus, and playgrounds than to organise efficient departments of physical training ; but the example and experience of Amherst and Harvard must exert a powerful influence in the near future upon institutions which at present have gymnasiums without directors, or which have retired professionals for directors.

Did space permit, it would be interesting to notice the course of events in the development of the great interest taken in athletics in recent years, and the means taken at various institutions to regulate inter-collegiate contests in boating, base-ball, foot-ball, lacrosse, and the Caledonian games. A single statement showing the expense incurred by the students of Harvard and Yale for the maintenance of their athletic teams and clubs must suffice. At Yale the total expenses in 1882 amounted to $17.476.04; and the total income to $18.048.03; while at Harvard in the same year the expense account footed up to $15.542.44, and the income amounted to $18.056.82.

Enough has been said to show that the most prominent of American institutions for superior instruction believe, and act upon their belief, that bodily training can and ought to be provided for in the schemes of collegiate education. It is to be hoped that their example will ultimately be followed by the institutions devoted to secondary and primary instruction.

DISCUSSION.

Miss Dr. FREEMAN said that she also had attended the Conference for the purpose of being instructed, and she was certainly most willing to respond to the request that had been made that she should give her own experiences of the Wellesley College for Women in the matter of physical education. The Wellesley College, the Smith College in Massachusetts, and the Vassar College, were the three large colleges for women in Eastern America, and the methods they used were practically the same. Dr. Sargent had instituted methods of physical training not only for men but for women. In America, as in England, much had been said in opposition to the higher education of women on the ground of injury to health,

a. Concerning Bat facilities. . Concerning numl Lockers.	ter of Apparatus in Main Hall.	Remarks as to Direction and Instruction.
5 showers, 9 bat 300 lockers	light, and "Sar-	Head of department, a physician and member of the faculty.‡ §
bath-rooms . dressing-rooms	and light . . .	Drill led by students.
2 showers . . 50 lockers	nd heavy . .	In charge of U.S. Army officer.
6 baths . . 285 lockers	heavy, light, and gent"	U.S. Army officer. Also a physician, M.F.‡ §
report . . .	heavy	Directed by a member of the faculty.‡
undant . . . lockers	heavy, and "Sar-	Directed by an M.D. of the college faculty.‡ §
ıbs . . . . owls	heavy, and "Sar-	Director is a physician.‡ §
ıbs, 1 shower . ponge-baths lockers	heavy, and "Sar-	In charge of specially-trained director, M.F.‡ §
.. ..	. . . . .	In charge of U.S. Army officer.‡
t yet fitted .	fitted . . .	Office vacant.‡
imming-pool 40 y 26 feet	heavy, and "Sar-	A special instructor has charge.§
howers, 4 plunge lockers	nd heavy . . .	Under direction of a highly expert athlete.‡ §
.. ..	nd chest weights .	Special instructor and "Sargent" direction.‡ §
ressing-room .	nt"	Office vacant.
ıbs . . . . ressing-room	nd heavy . . .	A student chosen to direct.‡
.. ..	nd heavy . . .	No special instructor.
.. ..	..	In charge of U.S. Army officer.‡
.. ..	or calisthenics .	Under charge of member of the faculty.‡
ıbs, 1 shower, 6	nd heavy . . .	Some direction given by a special teacher.‡
.. ..	nd heavy . . .	Special instructors teach special branches.§

ecial Instruction in

To face page 372.

very wisely in the opinion of many gentlemen belonging to the medical and scientific professions. About nine years ago it was found that many of the women in Wellesley College had much better have been sent to physicians. The authorities had therefore required, during the last three years, that the candidate for admission should be examined by a physician. No girls were admitted unless they could bring a certificate from a physician showing that they were in perfectly sound health. There was much opposition to this innovation, but so many would-be students were turned away from the doors of the college who were incapable, physically and mentally, of undergoing the necessary training, that it seemed to be an act of injustice to receive girls except on the ground of physical as well as mental qualifications. To show that this regulation was not a dead letter, she might mention that she had refused admission to several hundreds of applicants because their physical condition was not satisfactory. For admission to Cornell University, where women are also allowed to study, a rigorous examination in physiology and hygiene is demanded as part of the examination. In the three large colleges she had mentioned, and in many of the small colleges for women, gymnastics were permitted under the advice and administration of Dr. Sargent, of Harvard. When the college at Wellesley had received its five hundred students in September, they were examined by the college resident physician and director of the gymnasium. Fifty-one measurements and examinations were taken, and the young ladies were assigned to different sections according to their needs. An elective course was offered, and last September, when seventy vacancies occurred, there were two hundred and eighty applications. It would therefore be seen that it was not necessary to urge the students to their physical exercises: the young ladies were required to exercise for an hour every day. The students were assigned to sections—those who had weak chests to one, those who were not good walkers to another, and so on; each one having those exercises

assigned to her which would, as far as possible, develop her in her weakest places. The students were not urged to lift heavy weights. They were not urged to exercise, and, indeed, were only allowed to do so under the personal supervision of the director of the gymnasium, and when they were strong enough to do so. Whenever they were in a physical condition which would prevent them from exercising with the best results, they were excused. It was not desired to secure gymnasts, or girls who could perform great feats of lifting, or swimming, or boating, or vaulting, but perfect physical symmetry. The directors aimed at securing "sound minds in sound bodies;" they aimed at the development of women who should have large lungs, clear heads, and warm hearts, well formed frames and good nerves; and under these circumstances there was no danger of a breakdown from mental overwork. Miss Freeman went on to observe that she had the honour of belonging to the Collegiate Alumni Association, which had been recently established, and was composed of graduates from the ten foremost colleges where women studied. There were over four hundred college graduates who were members of the Association, and during the last year they had devoted themselves to the collection of statistics in regard to this matter. Out of one thousand circulars which had been sent out asking questions as to the later life and the married life of women who had received physical as well as mental training, 80 per cent. of answers had been received, and the meeting would be interested in knowing that out of the 80 per cent. there were more than 70 per cent. of women, who could by no means be called invalids, who were engaged in their homes and in the schoolrooms, and in all the social and educational walks of life open to them. In addition to the great colleges for women which had been organised and founded, the doors of men's colleges had been thrown open to them, on the basis or supposition that severe mental training was *per se* physically beneficial to a woman as well as mentally and morally. It was of the greatest consequence

to women that all statistics and all facts possible should be secured to prove whether in this direction a mistake had been made or not. If a mistake had been made the women were the parties most interested in finding it out immediately, and immediately correcting it. The members of the Collegiate Alumni Association thought they had very good reason for thinking that they had not made a mistake, and that the steps by which they had proceeded had been very safe ones, and that women needed nothing so much as thorough mental training, and systematic earnest useful lives to make them physically stronger. They saw, however, that there were enormous difficulties in the way. Most of their girls—and she had no doubt, from what she had seen in schools in England, that teachers here experienced the same difficulty—came to them at the ages of sixteen and eighteen and twenty with the mischief to their constitutions already done, owing to ignorance of physical laws, and this they could not remedy. When girls broke down at college it was because of trouble which they had made for themselves before ever they saw the doors of the college; and therefore the members of the Collegiate Alumni Association had issued circulars which had been read by thousands of mothers having children in the primary and secondary schools, informing them, if they proposed to send their girls to college, that they must prepare them physically as well as mentally, and that Greek and Latin and mathematics were not more essential to them than thoroughly sound and healthy bodies. The presidents of the womens' colleges in America would meet hereafter those who were not equal, physically, to the demand upon them. If they broke down after that, the college washed its hands of them altogether, as they must have inherited some disease. They found in this that they were not wrong. During the nine years of the history of the Wellesley College, in which between four and five hundred students had studied every year, having come from a great many different states and countries, and from foreign lands in some instances, there had been only two deaths,

resulting in both cases from acute disease contracted outside the college, the cause in one case being diphtheria, and in the other typhoid fever. The president of the Smith College, where there were about two hundred ladies studying, told her (Miss Freeman) just before she left, that she had had only one death, and that resulted from a cause contracted in the south during an unfortunate winter. At the Nassau College the record was nearly as satisfactory, though younger students being admitted there, the chances of death and disease were much greater. In the case of the colleges for men the records were even more satisfactory, because in those cases the women did not, on account of the difficulty of entering, go up to graduate until their general health and all their functions were very well established. The testimony of the president of a college in Michigan, where 1600 students studied, showed that these general observations were correct, and he stated that the ladies maintained a higher per centage of health than the men. But he insisted that it was because they were a picked class, and very strong physically. Miss Freeman concluded by saying that she would be very glad indeed to answer any questions. There was so much that might be said on the subject that it was difficult to know where to begin and where to end. Those who were controlling the great question of higher education in America just at present, had considered no question more carefully than this which the Section was considering this morning; and instead of arguing these various questions with the medical gentlemen, who were constantly decrying the system, they proposed, in the course of a few years, to confront them with the logic of facts, and to send out into the three hundred thousand schoolrooms of America, where women laboured, teachers who were strong enough physically to go through the routine of work without nervousness, and without doing injury either to themselves or the students.

Miss EATON (head-mistress of the Wallasey High School for Girls, Birkenhead) said she thought that in girls' higher schools the question of gymnastics was too much neglected;

she spoke of gymnastics especially as being a training for healthy women. It was a branch of education to which she thought that teachers should direct their attention. The Spartans wished to have healthy mothers of healthy citizens, and it was strange that the old proverb of *mens sana in corpore sano*, was not more recognised in England. We required also, more especially to get the need of scientific training for teachers recognised. At present our trained teachers of gymnastics occupied a far lower position in the social scale than they did in Sweden, where they were men and women, not only of the highest education, but of high culture. She did not speak merely from theoretical knowledge, having, when at Stockholm, heard much of the Royal Central Institute for training both men and women in all the three branches of gymnastics, as they were considered in that country : viz., the teaching of calisthenics or gymnastics in schools ; medical gymnastics for the treatment of diseases and deformities ; and the training of teachers for the military gymnasiums of Sweden. Besides this, she had had considerable experience as headmistress of two high schools, in both of which she had had the teaching of calisthenics daily carried on. She had had the advantage of having under her a Swedish lady friend of Miss Löfving, who was for some time superintendent of physical education to the London School Board. A thorough certificate from the Swedish Institute was only to be obtained after a four years' course, after which a teacher was able, not only to give instruction in school gymnastics, but also to treat certain deformities. The course included the study of hygiene, physiology, and anatomy, with training and practice in teaching. The last year of the course was very much the same as students went through in the schools of medicine in England. It was strange that the question of medical gymnastics hardly created any interest in England. In twelve years' experience she had not come across six people who knew what medical gymnastics were, and not one doctor whom she personally knew could tell her what was understood by the term ; on

the contrary, she had generally had to explain what they were. Lately an institution had been established in England where the Swedish system of medical gymnastics had been carried out, not, she was sorry to say, by hand, but by machine. It could not, therefore, be regarded as so efficacious as if it had been carried out by trained teachers. It was, however, a step in the right direction, and in a few years she hoped they would not be so far behind the Continental nations as at present, in regard to the treatment of diseases by the action of the muscles, and the effect of the circulation on the nervous system. Another point which required attention was that many teachers of gymnastics were untrained, in the sense of not understanding the structure of the human frame, and were, consequently, no more able to treat the bodies of their pupils than untrained medical students would be. She could not help thinking that if they were not so untrained there would not be the prevalent abuse amongst girls which she could not help noticing, of tight lacing and high heels. To say that the state of things was better than it was, was, she thought, to say that which was untrue. Looking round her own school and elsewhere, she found that high heels predominated, for they had again come into fashion, but there was no one who would make a move on the subject. Parents were often opposed to any change, supposing, she thought, that if their daughters did not look fashionable they would not be attractive. It seemed to her that teachers of a higher stamp in connection with gymnastics were required in girls' schools. It should no longer be coupled with dancing (which was merely intended to promote grace of movement) any more than we should expect class teachers to instruct pupils as to exact method of manners to be observed in the drawing-room. Every school for girls, whether secondary or primary, should have a gymnasium, and she thought it would be a good thing if no new school-buildings should pass the sanitary inspector unless there were a gymnasium attached. Theoretically all this seemed to be very good, but teachers would know

how extremely difficult it was to secure the necessary funds. Money was forthcoming for all kinds of objects, but not for the neglected system of gymnastics. She would especially insist that we ought to have teachers of gymnastics who had been thoroughly trained in physiology and anatomy.

Dr. ROTH said he was one of a few persons who had during the last forty years made physical education a scientific study. He began with the baby, and several years ago he tried to establish at Brighton a little nursery, in order to teach young mothers and nurses, and others having the care of babies, something as to their practical management; but he was sorry to say that the ladies of the committee, instead of bringing in healthy children, brought in children which were diseased. As he did not want to have unhealthy babies, but a sanitary nursery, he opposed this; the institution languished in consequence, and he had since then had no opportunity of forming a second. This occurred after the great loss of children in a Catholic convent in France, where one hundred children were taken in, of whom ninety-five died. With regard to the speech which had been made by the Vice-President of the Council, he was sorry that that gentleman had not had anything to say for physical education, neither he nor his predecessors, who had been addressed on the subject for the last thirty years. He (Dr. Roth) addressed Lord Granville in 1857 on the subject of physical education and rational gymnastics. He experienced a great disappointment only last year, inasmuch as the sanitary inspectors spoke against all kinds of gymnastics. They appeared not to care about any kind of system, even the Swedish, but only recommended cricket. Cricket was no doubt a very good thing, but those who had been advocating physical education and gymnastics had never opposed cricket, but had always advocated cricket and all kinds of games. Speaking of his published work on the subject, Dr. Roth went on to say that he had therein set forth how different ideas and sensations might be expressed by different positions and movements. With regard to facial expression,

different sentiments were expressed by different lines, liking being expressed by oval lines, and enmity or suspicion by angular lines. He thought that these facts should be interesting to schoolmasters and schoolmistresses as forming part of an educational system. His little book was published some twenty-four years ago. After the great Exhibition he was asked by Mr. Fitch, one of their Vice-Presidents, to write a work on the subject. He was sorry to say, however, he was not a teacher on the subject of gymnastics, because he had a great respect for teachers, whom he considered to be one of the most important classes of society in the country. In elementary schools no gymnastic apparatus was needed; the human body could be developed by simple means. With regard to the remarks of Mr. Wilson, he would reply that swimming might be taught also. By means of a band stretched across a chair the motions of swimming might be learned, and in this way swimming had been introduced into the French army. Out of three persons who were taught to swim by this means, it was found that one could swim well on first entering the water, one could swim a little, and the third could not swim at all. It was very easy to teach either children or adult persons, as there were but two motions for the arms and two motions for the legs. The games of the children were also of the greatest importance. Besides the book he had mentioned, he made a translation of 'Ling's Exercises' about thirty years ago, and it had been used by English teachers for twenty-five years. It must be remembered, however, that gymnastics formed only a small part of a scientific physical education. He advocated a knowledge of physiology for schoolmasters and schoolmistresses, arguing that if teachers could not take care of their own health they could not take care of the health of their children. He always considered that one of the first requirements of a teacher was to be healthy and well. Playgrounds were of the utmost importance. The London School Board had lately received a present in order that they might establish a gymnasium. He

wrote to the members of the Board opposing the introduction of the gymnastic apparatus, because there were no teachers; and though it might appear immodest on his part, he might mention that it was only after many years hard work he induced the School Board of London to engage Miss Löfling as a teacher. Since Miss Löfling resigned, Miss Bergmann had filled the post, and those who had not seen her method should try to do so, in order that they might form some idea as to how lessons in gymnastics should be commenced. In England we were far behind in the matter of physical education, though it was evident, from the remarks of Miss Freeman and others, how important a part of female education was comprised in the term gymnastics. Every schoolmistress should also know how to manage a baby. As to high heels—this was again a matter for the schoolmaster and schoolmistress—and the importance of a properly made shoe could not be too firmly impressed upon those who had to teach the mothers of the future. In conclusion, Dr. Roth recommended that an attempt should be made to induce the Government to establish a school for the teaching of gymnastics on the Swedish system. As to the subject of medical inspection, mentioned by General Eaton and Miss Freeman, he had both spoken and written upon it, but in this country we were so behindhand that our American visitors could not be otherwise than astonished. Having come here, as they said, to learn, they would teach the educationists of this country what ought to be done.

Mr. SEVERN expressed his satisfaction with what had been said on the subject of high heels, and wished that more moral courage could be brought to bear upon the subject. In the case of two very pretty young girls who lived close to his own house, he had had the moral courage to tell them that he would not allow his daughters to associate with them so long as they wore those high heels. He believed that this was the only way in which it could be put a stop to.

Mr. ANDRESEN said that in regard to this question of

physical education he would remind them of the German proverb: "Wörte sind gut aber nicht das Beste; das beste Wort nicht klärt." There were things that did not become clear by means of words, and amongst them he thought was the question of physical education. In Germany they had the "Realschule," a word untranslatable into English, an institution partaking of the nature of a modern school, in which, however, great pains were taken not only to teach, but to develop both body and mind at the same time. At the High School at Croydon he had witnessed the result of Dr. Roth's teaching, and he had also seen gymnastics practised according to the Swedish system, as taught by Miss Bergmann. He had himself been a pupil of Ling, whose system had been practised for curative purposes with very good results indeed. Military drill was certainly not a method of exercise which should be used for young girls, but the system of Spiesz, which he had himself helped to establish in Oldenbergh, where it had become a healthy and good plant, might very well be adapted to the needs of girls' schools. Dancing should not be altogether discarded. Schiller thought it one of the most beautiful movements of which the human body was capable. He referred, of course, to the right sort of dancing, and not to the wild whirling which had been discarded from English society. Referring, in conclusion, to the remarks of Miss Freeman, Mr. Andresen spoke of them as conveying good news, and expressed a hope that the movement would go on in the right direction and prosper.

Miss M. A. CHREIMAN said that as she had been requested to say a few words, she would ask the Conference to express its opinion that the examination and registration of professors of physical education has become necessary, and also that reports of the physical as well as of the mental progress of pupils in schools is desirable. All teachers of school classes should, in addition to skill in games, be encouraged to acquire some knowledge of elementary exercises, the principles of position and movement, and the general conditions of healthful, physical, as well

as mental growth. It did not appear that any reduction of mental work was likely to occur in the second or first-grade schools. Indeed, it seemed fairly certain, that with the aptitude for study possessed by the children of the upper classes, with constant good conditions of air, food, and clothing, and with absence of competitive worry, plenty of mental work, if balanced by plenty of play and moderate physical work, is not harmful, but beneficial ; so that the present business of physical education is to endeavour, during the period of growth and development, to bring every part of the body into harmonious perfectibility. They were all agreed that a moderate amount of scientific physical training is necessary during the period of growth. Her own experience taught her that a good system of exercises must consist of series of movements, not only correct in principle, but pleasurable in practice. It must provide not only for head and trunk, and arms and legs, but for fingers and feet, and larynx and lungs, and must be varied enough to sustain interest, and afford some sense of progress to the minds of our bright English girls and boys. The diploma requirements of specially trained teachers should comprise, First, a practical and theoretical knowledge of such a system, with power to organise and to conduct classes. Secondly, a knowledge of anatomy, physiology, and the laws of health, in order that he or she may know what to do and what to avoid, and be capable of distinguishing between moderation and excess, and of adapting exercises to the requirements of individual pupils. Thirdly, a knowledge of form acquired by drawing, clay modelling, &c., that deficiency in symmetry and grace may be sure of detection, and, if possible, rectification.

These should be indispensable. As desirable, she would mention a sufficient knowledge of instrumental music to direct the accompaniments of exercises, and of vocal music and elocution, to make use of both as highly valuable factors of mental, physical, and (she would almost say) moral recreation.

Mr. JAMES HARVIE mentioned that he had had experience as a teacher of gymnastics for fifteen years, and said, in reference to the remarks which had been made on the subject of English games, that he believed most teachers of gymnastics were agreed as to the healthful character of English sports and pastimes. With reference to the question put by Mr. Wilson, he wished to say that any experienced teacher of gymnastics would provide a series of free exercises where apparatus could not be provided suitable either for children or adults. He did not himself at all approve of the "tug of war" for children, regarding it as unsuitable for boys, and still more so for girls. If the gymnastic training or the physical education of people in this country was so very important, as shown by the paper read, he wanted to know why they should not have a Royal College of Gymnastics or a Royal Institute, such as existed in Sweden, whence should come all the teachers, who would then be fitted for their calling. With regard to what had been said by Dr. Roth as to learning to swim by means of apparatus, he wished to say that he tried that system in his younger days, and had an apparatus for teaching his pupils. Girls as well as boys learned to swim by means of the apparatus beautifully, but when he took them into the water they did not swim at all; though it was perfect in form, it failed in practice, not giving that confidence in the water so necessary for swimming. He also disagreed with a suggestion which Dr. Roth had published in one of his books, that teachers might in a short time learn to teach a scientific subject like physiology by means of anatomical models. A teacher of anything was not to be made so rapidly. With regard to what had been said as to the Swedish and German systems of gymnastic exercises, he believed that the English system embraced all that was necessary. As in England, outdoor sports were so extensively indulged in, no purely gymnastic system without apparatus was likely to be satisfactory to our young men. Great capacity for development was afforded by the English system of physical edu-

cation, even without apparatus, and with regard to the young ladies he was of opinion that training in physical exercises without apparatus might be made quite sufficient. But while thinking that the English system of physical education provided all the exercise necessary for the development of the human frame, he was of opinion that a gymnastic institute, designated by whatever name, whether the Royal College of Gymnastics, or anything else, might have the effect of providing good teachers of gymnastics, which at the present day were very much wanted.

Miss COOPER (of the Edgbaston High School for Girls) said she felt that everybody who spoke should have some apology for taking up the time of the meeting ; and her own apology consisted in the fact that she had recently paid a very interesting visit to America, where she received many kindnesses at the hands of General Eaton and Miss Dr. Freeman, and had been very much interested in the educational work now being accomplished in that country. Moreover, she was a pupil, and was proud to have been a pupil, of Dr. Roth. She did not know what Dr. Roth meant by saying he was not a teacher. He was a teacher who had done an immense deal for girls' education in this country. He helped her before she went into the school she was now in, and the work she did with him had its influence there, and was having its influence to-day ; and she hoped that influence would never cease to exist. England and America were both doing good work. She was delighted with what she saw of physical training in America, and she passed from school to school and compared one with another. She learned to guage the physical work that was being done by what she saw of the girls. Where the girls were to be seen sitting well, holding themselves well, and looking bright and healthy, there was sure to be found a well-arranged and well-carried out system of physical exercises. In England the same problems were being worked out, and though in America things moved more quickly, and the people were more go-a-head, yet in this country,

perhaps in a slower way, conclusions were being worked out which were more appropriate to our general scheme of national development. There were differences between England and America, and there was no reason why the one should try in any way to ape the other. For her own part she was glad to see each nation developing itself appropriately to the conditions under which it had to live. Here the question of ventilation was a thing very different from what it was in America; the climate was different, and a different idea existed in regard to what was necessary. Such questions as that of light gymnastics, especially for girls, as to how far apparatus should be used, and of trained teachers for physical work in schools, were being thoroughly considered in England, and at our women's universities these matters were not ignored. The point that had been so well put by Miss Freeman in regard to the physical value of mental work was one that had been prominently before English schoolmistresses for many years. Miss Eaton had, she thought, taken a more pessimistic view of what had been done in England than was justified. In many schools earnest and valuable attempts were being made at physical training for girls. Tight lacing and high heels could not at once be done away with. She did not think that mere school education would do it, judging from the results she had witnessed in some schools. Not only knowledge was needed there, but the resolution to set fashion at defiance for the sake of principle. In one respect, namely, games for girls, she thought that England was a little in advance of America. At Wellesley College plenty of opportunities were afforded for physical exercise in addition to the actual systematic training given. She wished that every one could see the beautiful grounds attached to the college, in order that they might be kept in view as an ideal of what the surroundings of a woman's college should be. There were lakes on which boating could be indulged in, and it would be a great advantage to the women at our own universities if there were more facilities for boating. There were, however, diffi-

culties in the way, but she was glad to see that so many games suitable for girls were so heartily taken up. She approved, not only of lawn tennis and the revived game of croquet, as games for girls, but also went in very heartily for cricket. Two or three elevens had been formed in her own school, and once there had been a regular match with another girls' school, and she was sure that the work being done in the playground, in the matter of physical exercises, was quite as well worth doing as the systematic training in the regular physical training class, presided over by a specially trained teacher, who was in no case considered to stand on a lower social level than the other mistresses. She had been properly trained for her work, which was very thoroughly done. She did no other work in the school, because the amount of time and labour involved in the department of physical education rendered it impossible. But that work never caused her to stand, in any sense, on a lower social level than the other teachers.

Dr. STRACHAN thought that the impression which must have been left upon the minds of the audience by the several speakers was not only that physical education was of great value, but also that there were in many cases insuperable difficulties in carrying it out. When they were told that there could actually be no development without physical exercise, and that any part of the body which was not exercised must remain undeveloped, it became a very serious consideration as to whether there could not be development without pupils being taken in hand in the way suggested. Even babies, it seemed, must now undergo a system of physical education, and the thought must strike all—What *was* to become of the millions in this country who had no such training? It might be all very well for wealthy private or public schools to employ teachers of physical education at £500 or £600 a year, but only a very small minority of the people of this country could enjoy the advantage of such teachers. What, then, was to become of the others? For the sake of those who might be discouraged by the difficulties suggested, he

pointed out that there is a teacher or guide thoroughly efficient and trustworthy, and freely available to all who will accept of her guidance. In proof of the efficacy of nature's teaching, he would point to the whole animal kingdom. Every animal under the sun was fully developed if left to itself and allowed to follow the dictates of this teacher ; and children who were just allowed to roam about grew up into men and women well developed in every particular. In many schools, however, the need existed that something should be done. In the first place sufficient time was seldom given to physical exercise, and there was a want also of sufficient opportunity. In that respect he very much approved of the introduction of gymnasia into all schools, because however desirous the child might be to take exercise, the opportunity was often wanting. In playgrounds where there were no gymnastic appliances, there was plenty of room for exercising the muscles of the legs, but not those of the arms and back. He protested very much against the idea that there should be no gymnastic appliances provided without a teacher to superintend them. Dangerous appliances were, of course, to be avoided, but parallel and horizontal bars and poles would give opportunities for the physical exercise which was wanted. If confidence might be put in nature in regard to the development of the body, he would suggest also the same confidence with respect to the development of the mind. He quite believed that mental exercise was necessary, but it must be conducted under the direction of the great teacher, Nature. As one gentleman had asked for information in respect to books which might afford guidance in this direction, he would mention that some years ago he published a book, entitled 'What is Play?' (Douglas and Foulis, Edinburgh), in which he tried to point out the nature and the value of the gymnastic exercises which are provided by nature for the very purpose they had in view.

Mr. BRITTEN said he had been asked to protest, on behalf of the Workmen's Peace Association, against the

introduction of systems of military drill into the schools. The Association thoroughly and cordially agreed with gymnastics, and with everything calculated to produce a healthy body and a healthy mind ; but though drill was required by the Code, they did not see the necessity for it. Schools were devised for the purpose of making good citizens, and should not be used for the purpose of making them soldiers. There was no doubt a time when such instruction might have been considered valuable—when our forefathers were compelled to resort to the strong arm for protection of their liberties. That time had now gone by, and we trusted to our own independence, to our sense of right, and to the protection afforded by free discussion. There was no need for this military drill, and he would call upon them therefore, as Mr. Lucraft had done upon the London School Board again and again, to use every effort to sweep away this incubus, and to trust to proper developments in gymnastics : and to the methods which had been so highly recommended.

Miss ALICE WOODS said she had had the privilege of being trained by Dr. Roth some years ago on the Swedish system of exercises, and since that time she had introduced it into four different schools in England and Scotland. There were several reasons to account for the success of the Swedish system. Marching to music was admirable, as it gave the children a very good sense of time, and when there was no music the children should count for themselves. The exercises gained in interest when the children counted for themselves, and exercise for the lungs was afforded. The children would also be found to acquire a certain readiness of action if the orders were changed quickly, and when least expected, and this kept them always on the *qui vive.* An important point was that they should have suitable dresses. In many girls' schools a difficulty was presented by the tight sleeves and tight bodies. In the school in Scotland where she introduced the system the girls wore blouses and knickerbockers, and as they often came into afternoon school in this dress, when

drill time came they were always prepared, and drilled very much better than girls otherwise attired. As to high heels, the remedy was very simple. If the teacher declined to give a lesson to pupils in high-heeled shoes, depend upon it they would not appear a second time. A great point was that the drill should be given frequently. A quarter of an hour every day was better than half an hour three times a week, and it was advisable that they should always be drilled by the same teacher. If possible, boys and girls should be drilled together, as the former added life to the whole thing. Teachers should watch carefully to see that the children were not suffering from deformities which would prevent their drilling well. In several instances she had been able to correct slight bodily deficiencies. In the case of a girl who had one leg a little shorter than the other, curvature of the spine was found to be coming on ; but for the Swedish system of drill it was doubtful whether the discovery would have been made. Where the system had been introduced an improvement in promptness and obedience was noticeable, and accompanied by greater self-control. These exercises also tended to give children greater dexterity in danger, and taught them to act promptly and quickly upon emergency. The absence of presence of mind she regarded as a great defect in modern education.

Miss FRANCES LORD said she had watched Miss Bergman's teaching in the London Board Schools with great interest. As to drill, the word was no doubt mentioned in the Code, and it was most unfortunate that English people used it in connection with military exercises. She sympathised with the representative of the Workmen's Peace Association in the view that the object of schools was not to train up regiments of soldiers. The suspicion obtained that it was a great waste of public money to do anything in the direction of health ; attention it was thought should be confined to getting the children to pass the standards. Where gymnastic apparatus was provided for the use of boys or girls, too much could not be said in favour of a teacher being present. The parallel bars, spoken of by one

gentleman as being so very simple and harmless, might produce humpback shoulders. In recreation, as in study, there should be a system of graduated exercises, and children trained on this system would be found to grow up straight and strong. Foreign nations gave attention to gymnastics, and in England a corresponding attention was given to games. In Sweden games were hardly possible. The frost lasted from October to May, and the ground was much too hard to run on. Football might sometimes be played. When the Swedish children went into the country they went not to fields, but to rocky islands, where there were delicious blue lakes to swim in and rocky steeps to climb. In England we had no winter such as was experienced by some European nations, and in the long dark winter days in Sweden it was impossible that physical exercise should be indulged in except under cover. As to the suggestion that the physical training of children should be left to nature, she had thought that the noble savage had long been disposed of, and that everybody knew that he was subject to diseases, and twists and contortions, rheumatism, and was attacked by death in various forms, some of which were known amongst civilised nations, and some were not. She was surprised to hear the gentleman suggest a return to a state of nature, and thought he must have been indulging in a holiday reading of Robinson Crusoe.

Miss FRANKS said it was quite certain that we could not have a healthy nation unless we had healthy women, and neither men nor women could be healthy unless they were brought up in a healthy way. Dr. Roth's model nursery was wanted to begin with, and afterwards model training schools in which regard should be had to the all-round education of the pupils. Healthy education could only be attained by having regard to every germinating faculty within the child, not only the tendency to physical activity, but also the emotions and intellect. Not the least important were the exercises of the chest. But physical exercises alone formed but a small part of physical health.

Happiness formed the best foundation for health in young children, and happiness was the result of the full, leisurely, and perfect development of every faculty. When these conditions were fulfilled a splendid vantage ground for further growth was afforded. The founder of the Kindergarten had done much to show that education of childhood was not merely a vestibule or gateway to a subsequent stage of development. Frœbel had made a deep study of the early stages of growth in the human being, and had devised excellent methods of meeting the requirements of these stages of development. He had proved, better perhaps than any other reformer, that physical health and all-round health went hand in hand, and are quite inseparable, and that neglect of any faculty might cause irreparable mischief. Such neglect he aptly compared to the effect of injury upon a young leaf. "Do what you will afterwards," he said, "the scar will remain; will grow with its growth, and will prevent that leaf from becoming a perfect leaf."

Mr. NOBLE thought that having regard to the short time in the week which could be devoted to gymnastic exercises, they should be supplemented in other ways. Those who knew anything of boys' schools would be agreed that the outdoor games were the most valuable part of physical education. Cricket and football were of far greater importance than any amount of indoor instruction. Could not the attempt be made to induce girls to spend as much time out of doors by means of such amusements as lawn tennis and archery? He was satisfied that more good would be effected in this way than by indoor exercises.

FRÄULEIN HEERWART thought that the interchange of opinion was one of the great advantages of this Conference. The author of the book entitled, 'How to Play,' showed how play had an effect on the morals and the minds of the children. The physical exercises were an important part of Frœbel's system of education, and all the Kindergarten games had some distinct purpose in view for the development of the arms or the

body. It was desirable that the Kindergarten teachers should know the object, and the effect of each game on the child's health. Sufficient attention was not directed to this point. As to music, it was of course understood that most of the games of the Kindergarten were accompanied by singing. With regard to the effect of the Kindergarten education on the bodies of the children, she found that if they had nothing to do they would often come and ask for something to eat, or for something which they would not think of if their minds were otherwise occupied, and their hands engaged in play or work to do. If the intellect were benefited the moral nature would be also benefited, and both would react on the health of the child. Occupation and industry influence the moral education.

Mrs. WILLIAM WHITE said she would like to explain why boys did physical exercises better than girls. The boys wore lighter clothing, and this gave them greater freedom of limb. She wished to know why girls should not have equal freedom. Her own six girls were all dressed alike; they wore no petticoats, but had two sets of combinations with a loose-fitting dress over. If all girls were dressed in that manner, they would not only benefit very much indeed by their exercises, but would do them with much greater ease, and without injury to their bodies. So long as mothers permitted their growing girls to wear corsets and high heels, with heavy petticoats and tight-fitting dresses, so long would there be ill-shaped and sickly women.

Mr. SEVERN agreed that there was always a difficulty in finding occupations for clever, active, and strong children. He recommended reel-dancing as a physical exercise, his own children having been taught by Corporal Macpherson, a very popular teacher, who had taught the Prince of Wales's children. The boys wore kilts, and the girls wore suitable dresses, and all learnt to dance the reels exceedingly well. He also recommended swinging as a physical exercise, but the swing should be carefully put up, and instead of ropes he recommended that iron rods should be used.

The CHAIRMAN (Rev. Dr. GRAHAM) observed that the discussion had been a most interesting one, and it would be agreed that the papers laid before the Section, in the first instance by Mr. Holmes and Mr. Wilson, were very practical and suggestive. Much instruction had also been gathered from the address of General Eaton, followed as it had been by the remarks of the eminent Dr. Freeman. All present must have realised the fact that only true education was to be effected by having a sound mind in a sound body. He did not know whether they would succeed in making boys of the remarkable type to be seen in Greek sculpture, or whether there was any relation between the athletic exercises of the ancient Greeks and this remarkable beauty of form, but it was possible that there might be, and he hoped that in course of time the same physical beauty would be developed in our English men and women. There could be no doubt that healthiness, happiness, and success in all education could only be brought about by paying great attention to the important subject of physical education.

Mr. J. G. FITCH proposed a vote of thanks to Dr. Graham for his attendance during the whole of this interesting week, and also for the great services he had rendered in helping to organise the proceedings of the Conference.

(The Section adjourned until 2 P.M.)

The afternoon sitting was presided over by Dr. STAINER.

MUSICAL EDUCATION IN ELEMENTARY SCHOOLS.

By J. STAINER, Mus. Doc.

AS the details of musical education in schools will be discussed in other papers, I wish to take this opportunity of saying a few words about the relation of music in our

elementary schools to the general musical condition of the country.

When instruction in art has found its way into the elementary schools of any country, it is a sure sign that the higher and well-educated classes are interested in that art, and are alive to its educational importance; or, in other words, the efficiency of elementary education in art is dependent on—(1) The state of the education of the upper classes in that art. (2) The wish of the educated classes to extend the benefits of that branch of study to the lower orders of society. That the upper class of society should be always training itself in art, and at the same time striving to train the classes below it in the elements of art, would constitute an ideal condition of national art-culture. I take it that this might prove a general principle, and of wide application; but the art of music illustrates it admirably.

Half a century ago, music was really in bad odour amongst the upper classes of society. Great astonishment was once expressed in Oxford when a certain nobleman took a "first class," because it was known that he was a good player on the violoncello. I need not multiply stories to prove the then existing contempt for music; it is a curious contrast to hear now, as I often do, the lamentations of the surviving worthies of the last generation over the cruel fate which shut the gates of this temple of beauty in their faces.

Nor was musical education in a much better condition among the middle classes. Boys learnt nothing, saving those few who became cathedral choristers. As to the girls, if they played a "showy" piece or two on the pianoforte when home for their holidays, parents were quite content to pay the heavy boarding-school fees without venturing to ask if the child's hand had been properly trained in the *technique* by scale-practice and exercises, or, whether the child could read from notes at sight. Under such circumstances, what could be expected in elementary schools with regard to music. A few songs

and tunes were taught to children by ear only, and were sung by them without taste and without intelligence, and chiefly through the nose; this was the then music in elementary schools. But a gradual change of attitude took place towards music among the upper classes; they were not ashamed to become good singers and instrumentalists, nor to join choral societies, and go through the really hard work of assisting in the production of the master-pieces of great composers. The existence of such bodies as the Bach Choir, London Musical Society, Albert Hall Choir, and Amateur Orchestral Society, show that our best men and women have become our best workers in music, and put their hands to the plough. This recent musical revival has now permeated our educational systems, and has at last reached our elementary schools. If any here present have heard the children of the London Board Schools singing in their thousands under the transept of the Crystal Palace, or in the Albert Hall, I shall be excused if I say that the progress of music in our elementary schools has simply been marvellous; I have been particularly struck with the absence of the old nasal twang, and also, with the presence of a genuine musical sentiment which exhibited itself in the observance of the marks of expression. All these children can read from notes. I just now said that the new-birth of music had affected every grade of society and system of education; but I think the attitude of our old universities with regard to music, is peculiar. These venerable bodies are not notorious for receiving external impressions or suggestions with alacrity; but they even have raised the standard of their examinations for musical degrees, and have lately demanded from musical candidates some proof of literary acquirements. I am glad of this; it shows that music is now considered to be a real element of education, not a mere trick of handling sounds, theoretically or practically. But although our universities are proud and glad to have musicians, they take very little trouble to make them; an undergraduate who wishes to study music, will find little

if any assistance from the organisation of the "Faculty of music;" this is especially the case in Oxford, although the statutes give a grandiloquent account of the high duties of certain officers, the performance of which has apparently never been attempted; perhaps it is wise to print the statutes in Latin. A complete change has come over the musical education of our middle and upper classes by the free use of institutions of the "conservatoire" type. The Royal College of Music, and the Royal Academy of Music have amongst their paying students a large number of men and women who would otherwise be studying a single branch of music in private tuition. If properly organised and conducted, such centres of musical culture are invaluable, and I must allude with gratification, to the fact, that the Royal College has for its special object the discovery of national musical talent and its careful training free of cost to the scholars. The gratitude of the nation is due to the Prince who has made the foundation of such a college a labour of love. But of course a temptation has arisen to form inferior imitations of these superior institutions. If a conservatoire should become merely a place where shoals of young persons can get cheaper lessons than at professor's houses, where there is no real test of acquirement necessary for admission, and no standard to be reached before departure, then I say, such a place is valueless from an educational point of view, and is no better than a sort of musical co-operative store. At such an institution, the number of persons who take advantage of the co-operation, is a gauge, not of the good done, but of the extent of the mischief they cause. The highest object of institutions for musical training, is to guarantee that the scholars entered with a definite amount of proficiency, passed through a definite course of study extending over a given period, and before leaving, passed examinations of a certain standard. Here is a simple test which the general public can apply; if an institution does not give this guarantee, it deserves neither private nor public support. Having spoken of the dangers to which the higher

musical institutions are liable, I should like to say a word on a danger to which the musical teaching of elementary schools is liable. You know that, before a school can earn the full grant for music, Her Majesty's Inspectors must be satisfied that the children are being taught to sing from notes. Now there is great danger lest the children should be taught mechanically to do what is required by the letter of the code, without learning to love music for its own sake, as the highest and most refined interpreter of the most occult and intangible emotions. To avert this danger, we must influence the masters and mistresses while passing through the Training Colleges ; I can assure you that I and my excellent coadjutors, Mr. Barrett and Mr. M'Naught, lose no opportunity of preaching in training colleges that the only object of mastering the grammar of music, is to make the heart the better able to tell its story of lofty aspirations, whether they deal with the things of this world or the things of the future life. This brings me back to my original statement, that the ideal elementary education is that which teaches, as its very name implies, the elements or foundation of the highest knowledge. That all can reach the highest knowledge is of course impossible ; but that all should have the chance of reaching after it according to their natural gifts it is the bounden and primary duty of the nation to provide. This is why the musical requirements of the new code rise to a somewhat high standard ; it was never constructed as an easy means or mere channel for passing shillings from the Treasury to schools, but for the purpose of throwing open the door of a glorious future to the poorest and meanest child who is drawn within the meshes of our educational net. I entreat masters and mistresses not to complain that we make our requirements with such ambitious hopes. I never yet read of a general who sounded the halt to a large army because a few score had fallen out of the ranks from fatigue or sun-stroke ; nor can I patiently hear the cry of over-pressure urged as an argument for assessing the education of the many by the weakness of the few. Of course, all schools have not equal

opportunities, and here we are much at the mercy of the common sense of the Inspectors. I am afraid they have at present a strong tendency to administer the Mundella Code as if it were a "Code Napoléon." But I hope that greater familiarity with its working will prove that it has a certain elasticity in it. It would be impossible to make a distinct legislation for small struggling schools, and it must remain in the hands of Inspectors to apply the tests with less severity in cases where schools have palpably less opportunity. I look forward with great hope to the musical future of this country; all of us who labour in the sphere of musical education are, I believe, preparing a rich soil from which ere long some great composers will spring.

I must not close without alluding to one important fact bearing on the higher musical education of this country; it is, the remarkable amount of imported teachers. The mental and intellectual food-supply of a nation comes under much the same laws as its supply of physical food. If a country cannot produce a sufficient amount, it must import it; if, on the other hand, a nation is so highly favoured as to have a superabundance, it can export it. Now, in the matter of music, England, I am sorry to say, has for so long, and has so persistently, imported its chief instrumentalists, singers, conductors, and teachers, that it has hitherto crippled any efforts to raise its own supply. I know this is a very delicate subject, but I am sure I shall not be misunderstood in this place, by this audience. I do, however, feel it my duty to say boldly, that we shall never make a great musical nation without more self-reliance than we now possess. I believe this to be the real explanation of the fact that we have had so few good composers, perhaps not one absolutely in the first rank. When an Englishman finds that he has gifts and facility for composing, in nine cases out of ten, he deliberately makes up his mind to imitate some well-known and successful master; I would rather not give names, but instances press upon me at this moment. How is it possible that we can ever possess an English school of composition while this fashion

lasts? Another cause of the want of success of English composers is their intense worship of "respectability." It is not respectable to be original; our professors and teachers have, for generation after generation, with red pencil in hand, been cutting out and rejecting as vicious, progressions, phrases, and forms, which our wiser neighbours have been welcoming as new sources of originality. The result is what might be expected: England possesses some respectable composers. Another insidious mischief arising from the same cause is this, the young composer goes to the musical critic who cannot himself compose, to ask what style he should adopt. If he takes the hints given him, he is highly respectable; only, he has become so by changing places with the critic; he has, in fact, resigned his own natural creative gifts in order to become a mere modeller under some one else's direction; he is rewarded by free gifts of praise at once, but his fame dies with him. He has become a highly respected citizen of the world of art, and like all highly respected citizens, he thinks that the only posthumous honours worth having are those payable considerably in advance. The great mass of our countrymen must change its mental attitude towards music completely, if the full effects of the present extraordinary growth of musical education are to be realised; but I have great hopes of the result—if only all will work honestly and with a noble end in view.

CLASS-TEACHING IN SCHOOLS.

By William Alexander Barrett,
Mus. Bac. Oxon.

It is scarcely necessary to offer any arguments or to present any statements to prove the general interest that is taken in music and musical matters at the present time.

The universality of the desire to cultivate the art of music, vocal and instrumental, in all its forms, both rudimentary and advanced, as well theoretical as practical, is well known and widely acknowledged. The questions which force themselves forward, and demand a thoughtful practical solution are not so much "How is all to end?" as "Is the present cultivation of music being carried on in a manner that is likely to bear healthy and wholesome fruit?" "Is music being taught in the elementary stages in the complete, thorough, honest, and straightforward manner that is attempted in other subjects?" If it were possible to take an educational census on the matter, it would probably be found that there is much that might be mended. In the teaching of music in classes, especially in those above the degree of a public elementary school, there is a vast amount of unscientific practice, absence of method, and want of direction.

It is a fact that not all the teachers entrusted with the instruction of the young are sufficiently conscientious to carry out what they know to be the right plan. Many are tempted to adopt "hand to mouth" systems with their pupils, in order that ignorant or exacting parents may be impressed with the idea that their children are making progress. In this respect it would seem that parents and guardians themselves have much to learn. In a matter more directly commercial it would be the business of all to take care that that for which money was paid was of the right value. In the business of teaching music much is left to faith. The capabilities of the teacher are taken on trust. The consequence is that there is much teaching, as it is called, and very little learning. There are earnest-minded men who, noting the deficiency in this branch of education, set themselves to devise plans by means of which some real work should be done at the cost of the least trouble. These plans, for the most part, while they lighten the task of the pupil, also open a way by which the teacher can avoid his duty. What is wanted in teaching is *method* and not systems. The teacher must be taught

to teach. He must learn what is necessary for him to do to become a good instructor. This, unfortunately, is not to be acquired in any existing institution. Men study certain subjects, and, gaining an acquaintance with them sufficient to satisfy boards of examiners, receive a certificate of proficiency or what not in their several subjects. They may have acquired by observation of their own master a plan of proceeding. This plan may be adopted when they become teachers themselves. They may be gifted with judgment and common sense, which will supply or stand as a substitute for what is needed in the way of true method. With the scientific rules of teaching as an art they know little. If they have learned anything of them, it has been by experience gained through labour and anxiety.

The concentrated experience of the many should be formulated to serve as a guide for the future. It would not be difficult to devise a plan of proceeding for those who are to be trained to teach. The advantage would declare itself in the course of practice, and the accumulated experience could be applied to strengthen the weak parts of the design, to confirm the strong, and to remove the unnecessary. A regularly organised series of rules for guidance might be laid down, which should serve as a refuge to those who, being called upon to teach, without this help would not know how to set about their work.

At present it is found that only the most enthusiastic teachers are able to make headway against the tide of ignorance by which they are beset: ignorance, not so much of those they are called upon to teach, but ignorance of their own. The plan of teaching, where there is a plan, is adopted as a matter of convenience after many tentative efforts. Much that is done cannot be defended upon scientific principles, and the results are often most unsatisfactory. The teacher should be armed with a definite formula, which should be a guide to himself in the treatment of cases before him. The student of medicine is required to know the value and properties of the materials he is called upon to administer, and his mind is, or should

be, charged with a series of general principles to direct his action in cases not heretofore within his experience.

The qualifications to teach should be as strictly insisted upon and tested as those of other professions, so that the mere pretender or the daringly ignorant should not be allowed to experimentalise, or beguile the needy or the willing by specious assertions.

The mind is often vitiated or distorted beyond the power of remedy by bad teaching. Lord Bacon says, "It is an error to commit the natural body to empiric physicians, which commonly have a few pleasing receipts, whereupon they are confident and adventurous, but know neither the causes of diseases, nor the complexions of patients, nor perils of accidents, nor the true method of cures." If caution be necessary with the body, how much more should it be with the mind? How many have abandoned music so soon as they have become free to choose for themselves, not because they are unwilling to pursue the art, but because they have been submitted to processes which are nominally educational, but are actually conducive to mental atrophy!

It is a matter of common experience to find those whose accomplishments consist in the execution of a few firework passages on the pianoforte, when all other resources fail, put themselves up as instructors.

It would be difficult at present to compel all who undauntedly propose to teach, to prove their qualifications before a competent board of examiners, and to make it a matter of necessity that they should obtain a licence as a preliminary to practice.

But it might be done by a gradual process. The direction of this matter demands the most earnest consideration of all educational bodies. Of the vast number of students at the several musical academies, it is not possible that all can be qualified by natural gifts or acquired accomplishments to become public performers. The greater number of the students become teachers when they follow up the advantages gained during the period of connection with

the teaching establishment. Others there are who make the attempt to join the limited ranks of public performers, but in course of time abandon that walk of life either from lack of success, absence of perseverance, want of nerve, or the possession of qualifications looked for in those destined to become favourites with the public. Having no other means they adopt teaching as a profession ; and, although to a certain extent prepared for this purpose, they are not wholly qualified. They have learnt something, but not all that is requisite. If they achieve success it is often at the expense of the pupils entrusted to them for training. They have had no opportunities of knowing the methods of teaching ; and although they may possess certificates to show that they have satisfied examiners in certain branches of the art they propose to cultivate, those certificates do not always prove the competency of the owners. The best and most valuable qualities of a teacher, namely, earnestness of purpose, patience, fidelity, self-denial, devotion, cannot be gauged by the tests for certificates as at present proposed. What is needed is some organisation by which the principles of teaching should be impressed upon the minds of those who desire to enter the world as instructors. If the great schools of music were to make an earnest endeavour to teach the teachers, to formulate the art of communicating knowledge, to render it as attractive to the learner as possible, a great gain would be obtained.

It is, of course, utterly impossible to lay down a set of rules which shall be applicable in all cases. All that require to be taught have not the same capabilities or the same receptivity. It would be therefore dangerous and destructive even to put into practice a system which is asserted to be universal. Such a process would prove a very serious hindrance to real progress, and not in any way a help. But it is quite possible to arm the teacher by a course of training which should so far prepare his own mind with resources which would enable him to deal, with a probability of success, with all cases which are likely to come before him. He might also be taught the necessity

of recording his own experiences for the guidance of others who will have, in due course, to succeed him. It is a mistake to suppose that the art of good teaching comes by nature. The most successful teachers are not always those who know best how to deal with the appliances of their art. Those who play well, or who sing well, may not know always how to teach well. Many of the so-called teachers make a very serious mistake when they assume that because their powers of vocal or instrumental execution are superior to the general that they are qualified to impart instruction to others. Some of the best teachers are those who have "studied the philosophy of their own special subject, and who know best what has been thought and done by other workers in the same field."

The few suggestions appended to this paper may serve as a basis upon which to construct an edifice of instruction for the teachers, and also as a guide to the teachers themselves as to the system upon which their work should be conducted. Some knowledge of school management should be included in all designs for improving the course of procedure, so that the teachers of the future may be as much as possible armed with moral as well as scientific power, and class teaching of music in schools made to produce as regular and definite effects as other better ordered subjects.

APPENDIX.

The chief purpose of the teacher in commencing his work should be to convey to the minds of his pupils the fact that they are "not to learn for school only, but for life." However confined may be the area of the study, however unimportant it may be with regard to more highly estimated subjects, however little may be required for the needs of the course, or for the purpose in

which he is engaged : that little must be seriously and thoroughly taught. It will, perhaps, suggest itself to the teacher that it would be somewhat absurd to declare intentions of this sort to young children in order to elicit their sympathy. There is no need for him to make any such statement at all. He must show by the manner in which he sets about his work that he is absolutely in earnest : that he takes as much pleasure in his subject as he desires to awaken in those to whom it is to be taught.

This will impress the pupils with the reality of his purpose in a manner more forcible than oceans of words formed into a preliminary discourse. The earnest teacher has a greater moral control over his class than a careless or indifferent one. He can command and maintain discipline better. Without discipline it is impossible that any progress can be made. Therefore, one of the earliest lessons the teacher has to learn is to institute discipline. He must be able to manage his class by himself without calling in, or needing the aid of the authority of the heads of the school. He can best command discipline by showing that he is master of his subject. This may seem to be altogether a superfluous statement, but a little reflection will show that it is not so. When a teacher completely knows the subject he is called upon to teach, he is never at a loss. It is not enough for him to know only a little more than is required for present needs. He must not be merely acquainted with the surface, but he must know the breadth, depth, and height of the matter; its solid contents, as well as its superficial measurement. It is impossible to engage the attention of pupils when there is a likelihood of hesitation arising from the consciousness of limited acquaintance with the subject. There should be a reserve of knowledge ready at hand to supply the questions which may arise during the course of the lesson. The teacher who is only half informed, will lack fluency in imparting his information, and constantly betray something akin to fear lest his own ignorance should be discovered. He will stammer and hesitate, and so lose the control he should have over his class, for in teaching, as in other matters, "he who hesitates is lost."

Moreover, he who is thus ready armed for all emergencies not only possesses command over his subject, but also over himself.

Whatever may be the natural peculiarities of his disposition, they must be controlled during the lesson. Impetuosity must be

checked, impatience softened down, irritability must be suppressed, hastiness put away, and, in short, all such phases of temper must be hung up outside with the coats and hats. If the teacher is unable to command himself he can never obtain obedience from those over whom he is placed to control. It is, therefore, necessary for him to keep a constant watch over himself, and never to allow anything to appear to disturb his equanimity. Children are remarkably quick in finding out weak places in the armour of their superiors, and a fallible point once discovered will ever be made a means of diverting themselves at the expense of the teacher. The idle, the obstinate, the impertinent, and the indifferent, can all be better ruled by a calm and equal temper than by an irritable one. To ensure as much as possible this necessary frame of mind, the teacher must know exactly what he intends to teach at each lesson. He must map out a course and keep to it. He must never be tempted to do more than is laid down, for the gratification of his own feelings, when he finds one or two of his pupils are in advance of the lesson. He may find it expedient to do less, and must not exhibit disappointment if this is the case. He must remember that in class-teaching the object should be to teach the whole class. He must, therefore, devote attention to the dull ones, and help them on. If there are sufficient clever pupils to justify him in forming a higher class, this should be done ; but he should never be tempted to arrange the sharper ones in an order convenient for him to address his questions to them, and delude himself and the heads of the school into the belief that they represent the average skill of the class, and that great progress is being made.

He should not give himself anxiety to save trouble, but he should give himself trouble to save anxiety. It is quite a common custom for the teacher who desires to "stand well with the authorities," to disregard by his action at the outset the object for which he is employed. If he has been engaged to teach class-singing to a certain number, he should not begin by sorting his assigned pupils into those that are interested and those that are not interested in the subject. This plan saves trouble at the outset, but it gives rise to anxiety in the end. It also raises up both willing and unwilling antagonism. It never helps the teacher to discover real strength or weakness, the selected or the elder pupils imagining, rightly or wrongly, that the teacher has no power of discrimination, assume airs of superiority, and so help to thwart his desire to obtain perfect discipline. Yielding to

the temptation implied in the question, many of those who are really interested, and even some that have special ability in music, deny the possession of the primary qualification desired by the teacher, in order to indulge in idleness unchecked. By this they raise up a spirit of insubordination which gradually permeates the whole class, saps the foundations of the influence of the teacher, destroys all hope of discipline, and becomes a perpetual source of anxiety to him. His interest in the class weakens, and his work becomes a mere perfunctory business, reluctantly entered upon, carelessly scampered through, and eagerly brought to a conclusion.

The teacher must find out the relative merits of all placed under his charge. By degrees if he is slow; at once if he has experience. He must never select those who assert themselves to be best, and, placing them in a separate row, direct his attention to them alone. He should assume that all who are sent to him to be taught should be made to have an equal interest. He will naturally find out those who have the greatest aptitude and are quickest at learning. These it may be necessary at the outset to keep back a little, that the duller ones may be brought forward. It is wrong in principle, and it is, to a great extent, dishonest in practice, to accept the progress of the few for the condition of the many.

Class teaching is the realisation of the true republican element in education—the distribution of a certain amount of mental wealth among the many, and not an accumulation for the benefit of a favoured selection. The experience of the teacher places him above his pupils by the possession of the power to determine how much of that wealth each is capable of using rightly. He will soon learn to apportion to all under his charge the right amount needful for each to possess. His care should be, to see that every one brings into action to the best advantage all that is given. None should be permitted to bury their talents in despair of ever being able to employ them at interest. All should be encouraged by the hope of getting some profitable return for their capital, however small it may be.

To attain this end, kindness must be the rule. No teacher, worthy of the name, should ever resort to cruelty in any shape. No pupil should ever be addressed by some personal peculiarity. This betrays a low order of mind on the part of the teacher. Threats should never be employed. They amount to a confession of weakness, inability, and want of discipline. To resort to corporal punishment to enforce a precept may succeed in implanting

the idea sought to be conveyed, but such ideas are always accompanied by associations of hatred and rebellion.

If the teacher is wise he will make his lessons so interesting that it will be punishment enough to the pupil to be excluded from participating in them. The teacher should cultivate, if he does not possess it naturally, a gentle but firm tone of voice. A sharp dictatorial tone may do very well to overawe hardened ruffians, but it should be remembered that the young are better managed by kindness. Pupils often get frightened at the ferocious aspect of their teachers, and either do nothing, or do everything ill. If the master does not try to impress what he has to say by a kind and convincing manner, he will never see any advance. His pupils will work like blind horses in a clay-mill. They may traverse in a dull, monotonous, mechanical way, in a circular direction, as many times as would be necessary to cover miles of ground, without making any progress, or awakening to anything like interest in the work.

A few more words may be offered here concerning the value of a good tone of voice in conducting the lesson. By this, of course, is meant the speaking voice, not the singing voice. The habit of employing a quiet natural utterance cannot be too highly estimated in teaching music. It is one of the most refined and refining of all the subjects taught in schools. Even those whose duties are set among the poorest members of society may use it with advantage. As Mr. Fitch says, "It is a great point in what you may call the dynamics of teaching to effect the maximum of result with the minimum of effort. And it happens that in regard to the voice, a low tone not only effects as much as a loud one, but it actually effects more. The key at which the teacher's voice is habitually pitched determines the tone of all the school work. Children will all shout if you shout. On the other hand, if you determine never to raise your voice when you give a command they will all be compelled to listen to you, and to this end to subjugate their own voices habitually, and to carry on all their work in quietness. The moral effect of this on the character of the pupils is not insignificant. A noisy school is one in which a great opportunity of civilising and softening the manners is habitually lost. And a school where work is always done in a low tone, is one in which not only is the teacher healthier and better able to economise the resources of his own life, but as a place of moral discipline it is far more effective."

What is true in general, is also true in particular application.

The teacher adopting a soft and gentle bearing will always effect more than one who is rough, loud, and overbearing.

A gentle and patient manner must be adopted to ensure permanent success in teaching. The teacher must remember that his duty is to educate—that is to say, to lead out the faculties, not to crush them. He must also remember that there was probably a time when he also knew as little as those now committed to his care, and he must not be impatient because his pupils' powers of apprehension are not so keen as his own. He must, therefore, restrain all outward signs and expressions of temper and impatience, and proceed with his lesson patiently.

When it is concluded, he should endeavour, if possible, to offer some words of congratulation and encouragement; or, if the lesson has not been so successful in its results as he should wish, if it is necessary to offer any remonstrance, it should be done in a cheerful, good-humoured way. The object he aims at will be attained another time, for by such treatment he will raise up an ally in every member of his class; and this should be his aim, for the teacher and the pupils should never be at antagonism, but, by mutual efforts, strive to attain one object.

If the teacher feels his work to be mere drudgery—and there are times when even the most conscientious and enthusiastic will be bowed down by the weight and weariness of the task of teaching—if he feels oppressed by the monotony of his daily duties, by the constant contact with minds inferior to his own, he should seek relief in other studies. He should always know what is being done by others in the same walk of life which he is pursuing, and he should also keep his mind refreshed by consorting with others superior to himself. If this cannot be done actually, it can be done in spirit, for, if the conversation of higher intellects is unattainable by him, it is not difficult to hold communion with them through their works. His mind being thus refreshed, he will be able to approach his ordinary duties with new power and vigour. While teaching he should never forget to learn, for the good teacher is always a constant student.

It is said that the teacher, like the poet, is born and not made. This is true, but not wholly so. It is also true that very tender, expressive, or vigorous lines may be written by those who can with scant qualifications lay claim to the poet's crown. Many verses and poems so written are, perhaps, as well known, and admired, because they are quite as useful and understandable as the work of the accepted poet. So it is, in a great measure, with

teaching. There are those who possess aptitude for teaching naturally. Their knowledge of the principles of the art may be intuitive, but experience shows that intuitive knowledge is not always so ready at hand when wanted as that which has been formulated and tabulated. By means of system, order, and regulation, the teacher of less brilliant powers may be made to acquire an equal readiness of resources as that which is supposed to arise out of the exercise of genius. For the practical purposes of teaching, the powers which have been acquired, are, perhaps, superior in usefulness to those which spring from inherent consciousness.

Genius, so called, is often impatient of restraint, and those who are said to possess it, if they are not trained to exercise control over their gifts, never make good teachers. There may be perfect sympathy both with the work and with those who desire to learn, but the want of order and system, which is to be occasionally observed in the proceedings of men of genius, is fatal to success in teaching. Their discoveries and criticisms may be of the highest value for general use, but for all practical purposes in helping the spread and the advancement of knowledge, the plodder has the advantage, inasmuch as he must proceed by system; and the genius defies, or, at all events, prefers to work without, regular organisation. Genius has little or no regard for the value of order. Without order no good teaching can be done. As genius is a faculty which either despises or is unable to appreciate order, it is of little use in teaching.

Instead, therefore, of declaring positively that the real teacher is "born, not made," which implies that good teaching is the result of the possession of genius, it would be better to say that certain persons, who are engaged in teaching have been able, by natural aptitude, so far to adapt the principles of their art to their mode of labour as to become as successful as though they were born to teach. There are many, even among successful teachers, who have not the power to codify their knowledge and experience for the benefit of those less gifted than themselves. The general principles of teaching are as applicable to music as to other subjects; but while there are numberless books setting forth the elements of the art and science of music, there are few, if any, books which can be considered as anything more than as *memoranda* of the accepted facts to be dealt with in a course of musical instruction.

Those books, which appeal more or less strongly to spirits of

like character with the author, are accepted and employed. They may enjoy a large circulation, but that only proves their convenience, not their capacity. All books which have one object, however—namely, the promulgation of certain facts for a certain purpose—are equally good to those who think them so. It is reasonable to assume that the compilers are as sincere in their designs as they claim to be. It is not intended to recommend any particular text-book as being likely to further the designs of these remarks. Each teacher selects the work best fitted to his sympathies. Therefore, the best text-book a teacher can use is that which he likes best, that which commends itself best to his appreciation. The clearest and most lucid book ever written is obscure and dull to the mind that fails to understand it. Respect for an accepted or a constituted authority may induce or compel a teacher to employ a system proposed in a text-book with which he has no sympathy. His work is most likely to be unsuccessful in consequence, without any fault of his own. His teaching is supplemental to the text-book, whereas the text-book should be supplemental to his teaching. It is absolutely necessary in the choice of a text-book to avoid that which is in the form of a catechism. The reasons for this caution are many, but the chief may be reduced to the following:—In the first place, the catechism implies a want of connection or union between the subject and the teacher, and the teacher and his class. In the second, the forms in which most of this class of works are thrown are neither instructive nor educational. In the third, the compilers employ expressions which are foreign to the minds of the class, and offer no explanation of them. This is a direct violation of one of the primary principles—namely, that nothing should be introduced into a lesson without being explained. In the fourth, the habit of young people "in doing their lessons" is to give themselves as little trouble as possible. They will, therefore, learn the answers, and so fill their minds with such nonsense as incomplete statements must give rise to.

It is best for the teacher to supply out of the stores of his own knowledge all that is necessary for the purposes of giving instruction. By instruction is understood the process of "building up" the minds of the pupils, and thereby furnishing the material of information. The foundation for this sort of building must be laid through the eye as well as through the ear. By this means the very youngest may learn something. The association of

forms with ideas is a process which leads from instruction to education.

It is customary to write the illustrations to class lessons with chalk upon a black board. This is a very convenient method, as it enables the pupils to copy the figures made upon their slates with pencil, by a process almost similar—that is to say, the material is nearly identical in its effect upon the eye. Many teachers have found that pupils, especially young ones, taught in class by this process, have failed to recognise what are intended to be the same figures printed in a book. It has probably never occurred to them to inquire the reason of this apparent stupidity, as it is often called. Young people who have been led to assume that white is black, and the reverse, will, no doubt, in the earlier stages of instruction find that this discrepancy has retarded their education, especially if they are among those who take everything literally. The process of learning from the figures on the black board and that of learning from those printed in a book would seem to many dull intellects totally different. With the sharper ones no difficulty is appreciated. They can reconcile the apparent incongruities. As it is desirable that all that are to be instructed should have no obstacles placed in their path, and because that the use of the black board has been found to raise up a certain difficulty, it should be done away with.

The convenience its use offers in furnishing most valuable *impromptu* illustrations ought not to be discarded. It is, therefore, suggested that a white board be provided on which the lesson should be written with charcoal. When the pupils are required to copy the lessons so given, they should be provided with white porcelain tablets, which are made in Germany instead of slates. As music is never printed with white notes on a dark ground, there would be less hesitation afterwards in recognising the characters when they are referred to in books. There is no doubt that the objection to the use of the black board has been felt over and over again in teaching music. Many teachers never use it in their classes. They prefer large printed sheets which contain some of the signs and symbols they require during the lesson. In the early stages of instruction these sheets may tend to confuse, inasmuch as they always contain more than is needed for the purpose of the present lesson. There is nothing like the proper use of the board for elementary instruction in music. It will not only show what the teacher desires during the course of the lesson, but at the conclusion it will exhibit what has been done.

In beginning a lesson, at whatever stage may be reached, it is necessary that the facts intended to be shown should be well considered beforehand. They should be arranged in a logical sequence, so that one portion may appear to grow out of the other. If one fact is made a prelude to another, the pupils will become interested, and will remember the points of the lesson. In teaching nothing should be taken for granted. If pupils are told that certain things are understood to be so and so, they will relieve themselves of difficulties by refraining from inquiry in cases where accuracy of knowledge and a full understanding of the reasons of things are necessary. The teacher who assumes too much had better give up teaching. It does not follow that because he has repeated many times a certain statement in one place or another, that it is known to all or any of those whom he is addressing at the time, unless it has formed part of a previous lesson. If there is any doubt that the matter is not understood, it is better to go over the ground frequently. The instruction must be made educational as far as possible—that is to say, it should be regarded as an important part of each lesson to acquire a fact in such a way that each pupil can make it his own, that he can reason about it after his capacity. It should be considered not sufficient that the pupils have learnt a number of things in a parrot-like fashion. They should so learn them that they can be brought into use as required.

Therefore it is necessary that the teacher should vary his form of statement, and frequently change the method of questioning. Otherwise, the proper answer required can only be obtained when the question is put in the customary form. Here the teacher will be forced to depend upon himself and his own knowledge, and not upon any text-book. Only a little should be taught at a time, and means should be taken to find out that what has been said has been thoroughly understood. The lesson should never be above the capacities of the class, nor yet be too simple as compared with what has been already done. The pupils should never be brought by the character of the lesson to think it too childish, and the teacher must never assume that the pupils know anything about what has not been treated of in class. The preservation of the notes of each lesson will, in showing what has been done, point out what there is to do. The great help in making instruction an important item in education is found in repetition and recapitulation. The lesson must be gone over step by step, so that anything omitted or imperfectly understood may be supplied

and explained either by way of extra illustration by the teacher, or educed by careful and judicious questioning.

Each explanation must be simple and to the purpose. If the teacher has thoroughly prepared his work he will be armed on all sides, as it were, to meet the difficulties which may present themselves to the learners in the course of the lesson.

Suppose the teacher is called upon to give a class-lesson for the first time. If he has had no previous experience of any sort; if he has never been present when a first lesson has been given, he will be greatly puzzled and troubled how to begin. It will be impossible to lay down hard-and-fast rules in such a case for the teacher to follow without variation. These would doubtless be serviceable were the teacher and his class required to be taught simultaneously. All that can be done is to offer a few general hints for guidance. The least clever teacher has wisdom enough to know how much or how little of what is laid down is likely to suit his own disposition.

The practice adopted by some of the most successful class-teachers in the kingdom may be seen by the following digest of a general plan.

The class is assembled, all are interested or amused at the prospect of a new diversion in their studies. The teacher is introduced, and if the class is composed of young children, he at once tries to awaken their attention, both in the subject and for himself. Here is the mode of procedure, as drawn out by a skilful and successful teacher :—

"Now, children, I am going to teach you to sing by notes. You all know one or two tunes which you sing at the beginning and end of school. These tunes can be written down and printed, so that others, who have never heard your tunes, may, when they see them, read them, and be able to sing them as you do. They have learnt to read music by means of notes and other signs. The letters of the alphabet are the signs which help to make words; out of words, sentences are made, and out of sentences stories. I am going to teach you to read notes, so that you may if you like write down your own tunes, and be able to read those written down by other people. I shall ask you to pay great attention to what I say, and to try and remember all that is done during each lesson."

He then proceeds to put a few questions, after he has gone over the whole lesson. These questions should be simple, well-formed, definite, and follow in proper sequence; they should be directed to

individuals, especially to those who may seem to have been the least attentive to the lesson.

It is needless to follow the whole course step by step. The teacher is certain that his work has been successful if, upon reviewing it in his own mind, he finds that some substantial additions have been made to the knowledge of the pupils, that their reasoning powers have been exercised, strengthened, and developed, and that the information gained is not likely to be soon forgotten.

He must bear in mind the general principles upon which every lesson he gives shall be laid out. He must not imagine that because he may be called to teach a class of absolutely uninformed pupils, that it is not therefore necessary to take much trouble. The first lesson is not only the key to his own manner, but it is also the opening of the path to success or failure. A moment's reflection will convince the thoughtful teacher that the task of interesting and awakening the curiosity of the young is one which ought never to be entrusted to the inexperienced. However, the work being begun, the teacher must remember to formulate each lesson after the following plan, modified as his judgment dictates or the case requires :

1. The lesson should be prepared beforehand.
2. The teacher should endeavour to excite the curiosity of his pupils in the subject he is called upon to instruct them.
3. No words or expressions should be used which are above the capacities of his class.
4. Everything new in the lesson should be most carefully explained.
5. Never be in a hurry to pass on to what may be considered more interesting parts.
6. Ask questions frequently of individual members, and do not be satisfied with answers from the whole class. Young people are very quick at following a "fugle-man," and a careless or not over-sharp teacher,will be deceived by a practice which is neither instructive nor educational.
7. Let the questions be varied so as to ensure a right understanding of the point to be conveyed.
8. Let each lesson begin with a recapitulation of what has been done on the last occasion.
9. Let each lesson end with a recapitulation of what has been done on the present occasion.

10. Avoid long lessons. If the subject has been prepared beforehand there will be no slackening of interest.

To this "decalogue of golden rules" for the teacher may be added a repetition of the suggestion already made, namely to keep notes of all the lessons. They will serve to show what work has been done from time to time, as well as to point out where weakness may be strengthened, where redundancies may be omitted, where new matter may be introduced with advantage.

The note-book of each teacher will form a system suitable to his own needs, and the collected notes of thoughtful teachers would be the nucleus of a valuable practicable method suitable to the needs of all teachers of class-singing in schools.

MUSIC IN PRIMARY SCHOOLS.

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The advantages to be gained by teaching the masses in our primary schools to sing have been admitted almost as frequently as the matter has been discussed. The innocence of the recreation provided by song, and the influence an early taste for music may exert upon the choice and character of the amusements of the people, cannot be seriously disputed. Teachers of the schools attended by the roughest and most miserable children declare that singing is an indispensable cheering and softening discipline. Recently, Mr. Buxton (Chairman of the London School Board) said to a gathering of musical educationists: "You have enabled us to tame wild spirits which we could not otherwise have tamed. It is the experience of those who know best, that there is no power in the schools in the lowest neighbourhoods which can exercise a refining influence on the wildest and roughest spirits like this teaching of music. We use this teaching as a recreation, as a relief and as a change in our schools, and I believe that nothing is so popular in our schools, nothing makes the schools so

popular and attractive to the children, as the music that goes on in the 300 and more schools in London." The argument that—

> "Such dainties to them their health it might hurt ;
> It's like sending them ruffles when wanting a shirt,"

cannot now be uttered by any rational person.

So much being conceded, the business of to-day is to provide practical ways and means for the musical education of the masses. If we are to avoid mistakes we must realise the conditions of our environment, and weigh the forces for and against us. The last generation witnessed a great effort to improve school music. Yet in 1877, Mr. Hullah, on whom the heat and burden of the work mainly fell, had the bitterness of confessing that "every class of the community has directly or indirectly profited by the impulse given to musical instruction by my Lords in 1840–1, except that particular class which it was hoped and believed would profit most largely by it." The shadow of that dismal failure has darkened the path of music in schools to this day.

The present condition and the possibilities of the immediate future of school music can best be comprehended by reference to the throes of the past. The history of music in primary schools may be said to date from the action of the Committee of Council on Education in 1840–1. A minute issued by the Council in that year authoritatively describes the existing musical condition of schools. It says : "The information derived from the inspectors of schools and from various other sources had made the Committee of Council acquainted with the fact, that vocal music had been successfully cultivated in comparatively few of the elementary schools of Great Britain," and further that, "The chief reasons why singing has not been cultivated to a greater extent among the lower orders in Great Britain consist in the too general neglect of elementary education, and in the fact that vocal music has not been reckoned among the necessary subjects of the education of the poorer classes in this country. . . . Among the impediments to the introduction of a more general cultivation of vocal music

among the lower orders in Great Britain has been the want of a method of instruction, facilitating the teaching of vocal music in elementary schools." The minute proceeds to record the inquiries of the Committee and their final decision to adopt and recommend the method now known as Hullah's method. Instruction books were published by the Committee of Council, and large numbers of school teachers were prevailed upon to attend the special classes organised under Mr. Hullah. The interest in the movement was great and widespread. But for some cause the schools did not show any result commensurate with the pains taken. Teachers lost enthusiasm, and complained that the subject was too difficult, or that the method was not adapted for children, and then amid the din of the battle of the denominations, matters went from bad to worse. The Revised Code of 1861, with its payment for results, provided only for the "three R's," and left music to shift for itself. The training colleges gave some attention to the subject, but the schools did not profit. In 1866, the low condition to which music in schools had fallen began to excite attention, and in 1867 was issued Mr. Corry's minute offering grants for extra subjects, music included. But only one extra subject was allowed. The teachers chose any other subject than music, for in 1869, only one school obtained the grant. In 1870, owing to the rising exertions of the friends of music, 43 out of 12,000 schools succeeded with music. In 1871, the new Code added many more extra subjects, and the amount of the grant for each was largely increased, but music was specifically omitted; it was disendowed, if not disestablished. This astounding blow gave the much-needed fillip to the musical philanthropists, and even musicians became aware of the existence of primary schools. Strong deputations waited on the Department, indignant speeches were made in both Houses of Parliament, and Mr. Forster, the then Vice-President, was besought by one member not to allow his name to be handed down to posterity as that of the uncouth barbarian who refused to teach the children music. Mr. Forster's invariable reply deserves attention to-day,

inasmuch as the state of things he describes has not yet passed away. He repeatedly said that the Education Department fully desired to encourage the practice of singing, but the difficulty was that "at present the Privy Council did not find their inspectors were able to give that thorough examination which they ought to give. The musical education of the *upper and middle classes* had been neglected, and it was difficult to find gentlemen competent to examine in the notation of music." Plans expensive and impracticable were freely advocated, and Mr. Forster continued to be harried by questions and deputations. At last a compromise was announced. Music was not to be reinstated as a paid extra subject, but was to be specially distinguished by a unique position. The total grant was to be diminished by 1*s.* per head where vocal music was *not* taught. This device was an economical inspiration. Music was subsidised without being paid for. The teachers felt betrayed and visited their wrath on those whose agitation had led to this result. The question now was, did "vocal music" mean by ear or by note? The sanguine hopes of the friends of music were dashed by the announcement that the memorising of a few songs got up by ear or by note was all that would be required. But a sop was offered in the appointment of Mr. Hullah as Inspector of Music in the Training Colleges, where he might be expected to indirectly influence the schools. For several years the situation was accepted, and almost the only protests heard were those of Mr. Hullah in the yearly Blue-books. Nearly all the schools escaped the music fine, and the Penal Code came to be regarded with equanimity even by the school teachers. The money was paid and received as a music grant, and it figured as such in the annual accounts of the Department. The amount, over £100,000 a year, excited many jealous remarks, and protests that this large expenditure was wasted on ear-singing gradually gained force. Meantime some of the large School Boards, notably that of London, had been demonstrating the feasibility of teaching singing by note, and that, too, with the

ordinary school staff. In 1878 five memorials on the subject of school music were addressed to the Department, and in 1879 the important step was taken of sending Dr. Hullah to the Continent to report on foreign methods and their results. Her Majesty's inspectors were also invited to make observations on the matter, and to collect statistics as to the relative prevalence of note and ear-singing. It was found that while 2944 schools claimed to teach by note, 21,224 confessed that they learnt only by ear. In 1880 an important move was announced. It was proposed to allow only 6*d.* a head for ear-singing, and 1*s.* for singing by note. The change of Government delayed the scheme, but in May, 1883, it came into force, and is the arrangement under which we now work.

What is the musical capacity of the children who fill our primary schools? This is a prime consideration, and one that the facts warrant our speaking of most cheerfully. A consensus of opinion of well qualified observers, and I may be allowed to add my own personal experience in many different parts of the country, justifies an estimate that from 90 to 95 per cent. of the children in our schools are capable of practically appreciating the main elements of music, and of associating these elements with musical notation. The ability of our children to sing tunes by ear is undisputed. Is it a necessary implication that all children who can sing by ear can be taught to sing from notes? I answer yes, if the teacher is well trained, and the method used is a rational one. Of course, in any one school some children have better voices and sharper ears than the majority. The plan of selecting the best, and rejecting the others, has been ably advocated. But I think the adoption of such a plan would defeat the ends looked for by those who are anxious for the success of school music. By all means let us have picked school choirs if their formation is the result of ceaseless cultivation of the great bulk of children in the school. A school choir as a goal for every child in the school will often reveal or arouse faculty where it was least expected.

The real difficulty of the problem before us at the present

time is the question of teachers. Is music teaching too special an art to be expected of an average school staff? If specialists are not a necessity, are the teachers now in our schools qualified to deal successfully with the subject? These are vital questions. It goes without saying that visiting music teachers are more likely to be successful than an ordinary school staff, and it is equally clear that the general adoption of such a plan would do a great deal to crush all the efforts put forth in and out of training colleges to musically educate our present and our coming teachers. This would be a sorry result. In Scotland, the plan is being tried in the town districts, but in England the teaching is mostly done by the school staff. The compromise adopted by the Boards of London and other large towns is, I think, a happy one, and I trust it will be followed not only by all the large Boards and combinations of smaller ones, but that the great societies who manage the voluntary schools will be induced, notwithstanding their special difficulties, to take similar action. The plan is the appointment of a musical specialist to occasionally visit the schools, and to advise and instruct the school teachers. In this way hundreds of hitherto badly prepared teachers have had improving practice, and have become excellent teachers of singing. But what of those to whom this aid has not been extended? In 1883, in England and Wales there were 35,444 certificated teachers at work in inspected schools. The only teachers whose practical skill has been officially tested are those sent from the colleges since 1872. Of these about 9000 are now at work. But it is only too true that a very large number of students quitted college quite unable to meet the note-singing requirements of the new Code. I question whether 5000 even attained the necessary practical skill. I defer any remarks on the question whether the Code is too exacting, or the training college course inadequate. Of the 25,000 teachers who have never been to college, or who left before the individual test was instituted, it is extremely probable that not one-third—say 8000—possess enough musical skill to teach by note. Is

it too late to teach the teachers how to teach? I think not. I believe the great majority could even now learn; and if they could all enjoy the occasional assistance I have advocated, the difficulty might in a large measure be overcome. In the large towns it is easy to form classes for teachers. But how to influence the forlorn country schools is another matter. Their case is almost desperate, and likely to be so for a considerable time. Natural selection works on the side of the large towns in the distribution of teaching power. The towns, therefore, may be expected to take care of themselves, but the rural districts need special help. If ever we have a School Music Society formed to watch over the interests of music in schools, the country districts will always merit the greatest sympathy and aid. Local musical enthusiasm and pride might also be stimulated to action in the matter.

But what is to encourage school teachers to take the trouble to teach by note? In England and Wales there are over 5000 inspected schools, whose average attendance is under 100. For a school of 80 the total grant for note-singing will be £4, and for ear-singing £2 per annum. A generation nurtured on payment for results is unlikely to be influenced by this trifling pecuniary inducement. In a large school the amount of the grant becomes a consideration, and managers and Boards take care that the full grant is earned. The following statistics illustrate the working of these tendencies. They tabulate the result of only four months' examinations under the new Code, but the relations they show are not likely to be much altered by later statistics:—

Results of Four Months' Music Examinations under the New Code.

	Schools or Classes.	Number of Pupils.	Average attendance.	
Infants	721	79,933	110	gained the 1*s.* grant
	4150	184,647	45	„ 6*d.* „
	104	1,856	18	not taught or ill-taught.
Older Scholars	1370	207,813	152	gained the 1*s.* grant.
	5315	414,214	78	„ 6*d.* „
	70	3,129	45	not taught or ill-taught.

Another fact of special interest is elicited by the foregoing statistics. Hitherto the returns have given only the numbers of *schools* under each head, and all the percentages published have been calculated on this basis. But it has been shown that the large schools are most likely to adopt note-singing; and so, when calculations are made on the number of pupils instead of on the number of schools, a more hopeful state of things is revealed. The new returns show that—

		Learn by note.	By ear.	Not or ill-taught.
Pupils.	Infants . . .	30·0	69·0	1·0
	Older Scholars .	33·0	66·5	0·5

Whereas the proportion of *schools* learning by note is—

		Learn by note.
Schools	Infants . . .	14·5
	Older Scholars .	20·0

A great feature of the new Code is the merit grant, of three grades. It would seem fair to expect that at least the second grade merit grant should be withheld when the note-singing grant is not obtained. But that the allocation of the merit grant is not being influenced in this way is clear from the following statistics:—

The Merit Grant (during four months).

	At 2*s.*	At 4*s.*	At 6*s.*	Refused.	Obtained higher Music Grant.
Infants' Departments .	1848	2247	410	470	721
	At 1*s.*	At 2*s.*	At 3*s.*		
Older Scholars' Departments	2394	3120	729	512	1370

For the future supply of teachers able to teach singing by note we naturally look to the training colleges. Hitherto, as I have pointed out, from various causes not more than half the students quit the colleges musically fitted to meet the Code requirements. It is not that the instruction is inefficient. Many of the cleverest teachers of the day are working *con amore* in the colleges. But their efforts are frequently paralysed by the quality of the material they are called upon to deal with. The source of supply of candidates for places in colleges is the pupil

teachers, the elder children of the schools, and hence, as we have seen, the product of a, musically speaking, backsliding generation. For many years numbers of candidates have gained places, although they had absolutely no knowledge of music, and only too often no power of singing, the little power they may have once possessed having hopelessly atrophied for lack of use. Mr. Hullah, in his yearly reports, constantly complained that half the students in colleges entered without any knowledge or skill. At present there are 26,428 pupil teachers under inspection. It is true that a yearly music examination is provided for them, but it is quite optional, and only deals with the cinders, ashes, and dust of musical theory. How to arrange for the pupil teachers to have systematic practice in singing may be difficult in country districts, but in the towns there should be no possibility of a pupil teacher escaping the needful attention. The progress of music in schools will gradually improve the pupil teacher, but the musical millennium will be greatly hastened if the pupil teacher can at once be put in a condition to improve the schools.

Then as to the final examination in colleges, does this sort the good from the bad? Unfortunately it does not. Only the total of marks obtained for all subjects is affected by the music examination, and no evidence as to the success or complete failure in music can be afterwards afforded to a school manager or a Board. In view of the much greater importance now given to note-singing, and the improvement expected in the source of supply of students, it may not be unreasonable to express a hope that the authorities at colleges will find it their interest and duty to materially raise their musical standard of admission. No doubt it would be hard to say that no unmusical candidate should find a place in a training college, but it may be fairly ruled that only exceptional ability in other subjects can justify the admission of a candidate whose musical case is hopeless.

The treatment of the subject of music in the colleges is naturally largely governed by the nature of the final

examinations of the Department. These examinations, at present, test simply practical and theoretical acquirements in music, and take little or no note of the peculiar demands made upon a teacher dealing with children's delicate voices, or of the art of teaching in a clear methodic manner the elements of music and musical notation. It is assumed that skill in teaching music is assured by the study of general method in the abstract. Consequently, it is notorious that students after leaving college are everywhere flocking to classes in order to learn how to teach music to children. The students in a college should frequently have before them classes of children, and the treatment of their voices and the method of associating musical facts with notational signs should be skilfully demonstrated. An acquaintance with a score or so of children's songs would be a useful addition to the knowledge thus gained. But if such a curriculum is to be made practicable in a college, either the incoming students must possess more practical skill on entering, or the requirements of the final examination of the Department must be modified. The music teacher must not be given an impossible task. It may be hoped that the Department will soon see the way to a more logical appraisement of musical acquirements. At present, much more credit is given for theoretical knowledge than for practical skill. This strange inversion is perfectly indefensible. An alteration accomplished—but not otherwise—it would be well to declare in the form of a special certificate the position taken by a student in the final examinations.

The note-singing requirements of the new Code have met with very little criticism. This may indicate that at least these requirements are from no point of view unreasonable. It may be fairly said that they aim to secure a substantial grasp of the main elements of music without unduly weighting the teacher with too difficult tasks. Thus time and tune are separately tested. The note-test is timeless, and the time-test is tuneless. Part-singing is not required at sight. The ear-tests are at first only phrases

to be imitated; and even when sounds sung are to be named, only the best children are expected to answer. Complaints have sometimes been made that inspectors have given tests far more difficult than the Code requirements describe. Mistakes of this kind should not occur. Her Majesty's inspectors and their assistants are all supplied with carefully composed tests, from which they are desired to select when examining.

Some statistics now to be given deserve the attention of all interested in the subject of music in primary schools. The first set shows the relative prevalence of note and ear-singing in schools under Boards and of the schools belonging to the various religious denominations. It must be remembered that the returns as to note-singing refer to the last year before examinations in note-singing were commenced. But so far as the new figures are known they scarcely disturb the relations shown by those of the previous year.

YEAR ENDING 31ST AUGUST, 1883.

DENOMINATIONS.	Number of Departments in which is taught Singing.					
	By Ear.	Staff Notation.	Tonic Sol-fa.	On both Systems.	On any other System.	Learn by Ear.
						per cent.
Schools connected with *National Society* or *Church of England*	13,796	1,079	1,106	23	132	85
Wesleyan Schools	567	15	236	1	..	69
Roman Catholic Schools . .	1,238	62	62	3	7	90
British, Undenominational, and other Schools . . .	1,345	87	468	1	3	69
School Board Schools . . .	4,797	186	1,999	4	19	68
Total	21,743	1,429	3,871	32	161	

This return shows that a very large number of the schools connected with the National Society are behind in attacking singing by note. The reason is plain. Many of the Church schools are small and in country districts. But this can hardly be a thoroughly satisfactory explanation to the supporters of the National Society. If that powerful body

could be induced to appoint school music inspectors of their own, to visit and stimulate the school teachers, a larger sum than the expense incurred would, I believe, soon be gained by the schools. Judging by the returns for the first four months of the new Code, it is probable that the Church Schools will lose not less than £27,000 this year, owing to the difference now made between note and ear-singing. It is strange that it is in the Infants' departments, where the requirements are little more than ear-singing, that the deficiency is most marked. The extent to which Board Schools are ahead of Church Schools in the matter of music will be seen by the following comparison :

MUSIC GRANTS UNDER THE NEW CODE.

		Percentages in Pupils. By Note.	By Ear.
Schools connected with National Society or Church of England	Infants . . .	17	82
	Older Scholars	23	76
Board Schools	Infants . . .	51	48
	Older Scholars	50	49

Another set of statistics shows the geographical distribution of note-singing and ear-singing. From this table it appears that Westmoreland is the least active county in England. Only four out of 123 schools teach by note. In Cumberland only 6 per cent., and in Devon only 7 per cent. teach by note. Stafford and Hereford come next on the black list with 8 per cent. The only counties that reach 15 or more, are Essex, 24; Middlesex, 20; Monmouth, 16; Notts, 17; Surrey, 19; Sussex, 25; Warwick 25; and the separately classed Metropolitan (London School Board) District, where 48 per cent. are taught by note. Wales claims 24 per cent.

It is hardly possible to avoid the vexed question of methods of teaching singing whilst discussing the question of teaching music by note, and it may be as well to mention here that even in the best appointed elementary schools in this country, the average time that is, and probably can be, devoted to singing is one hour a week. Although I should be glad if every child in our schools could be effectually

taught to sing by the time-honoured staff notation, I believe the Tonic Sol-fa system and apparatus to be the most perfectly adapted for use in elementary schools, and indeed, for any elementary musical education whatever. So far from hindering ultimate acquaintance with the universal alphabet, I believe the Tonic Sol-fa system to be one of the best means of acquiring it. Even if it is admitted that Tonic Sol-fa knowledge is of no use to the potential instrumentalist, it might fairly be contended that the system should still be taught. The difficulties of an instrument are not notational. They are chiefly mechanical and call for daily unwearied devotion. But the vocalist is not at one tithe of this trouble. Hence, while there is else than music to be studied in the world, there will ever be one hundred singers to every instrumentalist. The answer to the question, why the ordinary notation cannot be well taught from the first, is that whatever its other merits, it is not a good educational help to the tyro, and that, even where very skilfully taught, it requires a great expenditure of time. The early steps of a pupil in singing should connect mind, eye, ear and voice by an electric current, and for this reason, mnemonics dictated by fundamental principles of teaching are constantly required. When the subtle connexion is well established it can be set going by any notation—it has not to be rebuilt. Experience is so constantly confirming this view, that it is a matter of wonder that any contrary opinion can be held by those conversant with the difficulty of musically training children and beginners.

It may be hoped that events will soon convert all the rapidly diminishing number of those who do not accept the Tonic Sol-fa system, and that the glass slipper of school music will be cheerfully acknowledged to best fit this Cinderella of musical methods. The fact that 76 per cent. of the schools where singing is taught by note have gravitated to the Tonic Sol-fa system, is a fact too significant to escape the attention of all who think much about music in primary schools.

County Returns. Singing.—(From Returns for 1881–2.)

County.	Number of Departments in which Singing was						No. of Departments.
	Taught.					Not Taught.	
	By Ear.	Hullah.	Tonic Sol-fa.	Staff Notation.	More than One System.		
Beds	173	3	14	4	..	..	194
Berks	273	12	15	11	..	..	311
Bucks	274	15	15	5	..	1	310
Cambridge	236	12	7	5	..	..	260
Chester	582	15	60	20	1	..	678
Cornwall	354	10	22	14	..	3	403
Cumberland	305	4	14	3	..	14	340
Derby	482	9	32	12	1	1	537
Devon	665	15	20	12	2	6	720
Dorset	269	17	8	7	..	..	301
Durham	674	3	65	5	1	..	748
Essex	492	38	99	20	..	2	651
Gloucester	575	5	45	20	..	2	647
Hants	553	24	38	18	2	1	636
Hereford	192	4	5	8	..	..	209
Herts	269	13	28	9	2	..	321
Hunts	94	4	6	6	..	..	110
Kent (Extra Metn.)	704	25	63	25	..	1	818
Lancs	2497	31	264	53	1	5	2,851
Leicester	342	11	26	12	..	2	393
Lincoln	628	17	27	16	..	4	692
Middlesex (Extra Metn.)	239	11	40	8	..	..	298
Monmouth	209	5	30	4	1	..	249
Norfolk	546	11	23	19	1	1	601
Northampton	341	27	20	9	..	1	398
Northumberland	354	2	28	18	..	15	417
Notts	337	11	52	5	..	1	406
Oxford	279	20	11	10	..	1	321
Rutland	36	2	1	3	..	..	42
Salop	337	6	25	16	..	2	386
Somerset	602	25	29	21	1	..	678
Stafford	889	9	52	12	1	3	966
Suffolk	432	32	25	17	..	1	507
Surrey (Extra Metn.)	372	18	47	24	..	1	462
Sussex	428	35	70	28	..	1	562
Warwick	452	21	122	11	..	1	607
Westmoreland	117	..	1	3	..	2	123
Wilts	378	17	27	11	..	3	436
Worcester	387	5	31	13	..	..	436
York	2583	48	217	70	7	14	2,939
Metropolitan (L. S. B. Dist.)	1070	45	874	61	3	..	2,053
Wales	1331	12	373	36	1	9	1,762

SINGING IN SCHOOLS.

By JOHN SPENCER CURWEN,

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I ADDRESS myself specially to the teaching of singing in primary schools. It was a strong contention of the late Dr. Hullah—whose devotion to popular music was life-long—that singing should be taught to everyone; that it should be taught in childhood, and that it is the proper beginning and foundation of musical study.

These doctrines are undoubtedly sound. Essays have been written to show that the best way to spread music in schools is to prevent incompetent children from studying it. This would be true if the object of school singing were to create a few great artists and composers. But the aim in primary schools is not so much to create one professional musician, as a thousand amateurs; not to supply concert halls and opera houses with brilliant stars, but to make a concert possible in every village—indeed at every fireside.

Speaking generally, every one may be taught to sing, and tone-blindness is no more common than colour-blindness. The larynx, the organ of speech, is also the organ of singing. The same nerve, passing from the brain to the muscles of the larynx, prompts our voices, whether we give forth the mixed measures and inflexions of speech, or the regular pulsations and fixed pitches of song. Of course the musical faculty in individuals, and the physical quality of voices, differ immensely. Some children have dull ears and hard voices; while others scarcely need the prompting of a teacher, so keen is their ear, so true their intonation, so sweet their voice. The difference between the musical ear in children is, however, one of degree, not of kind. There is plenty of evidence in support of this. Mr. Evans, Superintendent of Singing to the

School Board for London, has 300,000 children to look after. Cases have arisen here and there of obstinate inability to distinguish one sound from another, or to imitate a given sound, but they have in every case yielded gradually to proper teaching. Every boy is not a potential Sims Reeves, nor is every girl a potential Patti, but up to a certain point every one is a potential singer, and no sufficient reason has been given for denying ordinary school children the pleasure of learning to sing.

That singing should begin in childhood is evident to every educationist. It is in childhood that the organs of voice are supple, and children learn to sing far more quickly than adults, for some of whom the word "impossible" may almost be pronounced.

In the school-room, too, singing comes as a pleasant relief among the crowd of severer studies, softening and tuning the voice and even the manner, storing the mind with wholesome and bracing verses, playing upon the senses with its undefinable but humanising power. Singing is a healthy physical act, and as such may well be advocated at the Health Exhibition. It promotes deep breathing, which renews the blood and the life. Dr. Affleck says that, if there were more singing, there would be less coughing. Lung troubles may be avoided and relieved by the systematic diaphragm breathing which singing requires. These benefits which belong to singing last for life; teach the school-children to sing, and in a few years the leisure hours of the artizan or labourer, the factory-woman or seamstress, will be brightened by the possession of a refining and social accomplishment.

Dr. Hullah used to say that all musical education should begin with singing. The reason for this is that the process of learning an instrument, like the pianoforte or violin, can be divided into two parts. First, the process of training the ear in tune and rhythm, and the eye in musical notation; second, the process of mastering the mechanical difficulties of the key-board, and enabling the fingers promptly to obey the mind. Now, the first process can be

attacked most easily by learning to sing. It is a case of divide and conquer. A child who has learnt to sing and to read music with his voice, can devote his undivided attention to the manual difficulties of the instrument he is trying to play.

What is the proper ideal of school-songs, both in music and words? Our school-music is advancing; children are becoming capable of better music. In what direction should they look for further supplies? As a type of the old school-song we may take:—

> "If at first you don't succeed,
> Try, try, try again."

I am told that some of Her Majesty's Inspectors object to this class of song, and ask the teachers to give them "something by Mendelssohn." As a consequence teachers are taking to a higher kind of music, but one which is often less suited to schools. In one school I heard lately the treble and alto of Barnby's "Sweet and Low," the tenor and bass being totally absent. In an infant school the little ones gave me the treble part of Morley's madrigal, "Now is the month of Maying." In a boys' school, still more wonderful to relate, I was treated to Handel's Hallelujah chorus in four parts, and as the tenor and bass were sung by unbroken voices, they were both an octave too high, the bass being on a level with the contralto, and the tenor often going above the air. All this is artistically bad. The composer's parts must neither be inverted nor omitted; whatever harmony there is must reach the ear. If such pieces are to be used in schools, the full chords must either be supplied on a pianoforte, or the score must be specially arranged in two or three parts for treble voices.

But apart from the artistic mistake of such performances there is a great moral loss in depriving children of the direct teaching of perseverance, patriotism, love of parents, kindness to animals, brotherhood, &c., which the old-fashioned school songs contained. The words are a vital

element in school music. Only such songs as can be thoroughly justified in spirit and expression should be admitted. I would not entirely proscribe love songs, but they should be sparingly used, and the foolish brag of many of our older national songs should be entirely rejected.

Should we have instrumental accompaniment in our schools? There are two reasons for saying "No." First, "instrumental accompaniment" would mean, in nine cases out of ten, the harmonium, whose nasal tone and want of accent would react most painfully upon the singing. Second, whatever instrument be played, there is the danger, almost the certainty, that it will be used to guide the children's voices in learning their parts, thus teaching them to sing by ear and not by note. A pianoforte accompaniment, when a song is learnt, is a pleasant addition, but I do not think that our primary schools are within even measureable distance of being able to afford pianofortes. In America, I believe, they are used, but neither in France, Germany, or Austria have I found them in elementary schools.

I have mentioned singing by ear and singing by note. A great disturbance has recently been made about these two ways of singing, and not without reason, for the distinction between them is of vital importance. The best we can say for singing by ear is that it exercises the voice, stores the memory with healthy verse, and to some extent accustoms the ear to discriminate between sounds. But to teach songs by ear is a laborious and time-wasting process. It leads nowhere. The good done is at an end when the teacher is withdrawn. It drums into the children a few songs, instead of imparting to them the power of learning all sorts of songs for themselves. Owing to the want of a money grant for teaching by note, and the fact that the school-teacher, under the system of payment by results, is practically obliged to aim at the minimum in each subject, the great majority of elementary schools in England and Wales have up to the present taught singing

by ear. The last returns, for the year ended August 31, 1883, show that in England and Wales 79·6 per cent. of the schools sing by ear. The change in the code, by which the full grant can only now be earned if singing is taught by note, will probably cause this proportion to sink rapidly, so that in a few years singing by ear will be the exception. In Scotland owing to the high condition of the schools, singing by note is general, only 36·3 per cent. of the schools singing by ear. This is in spite of the fact that at present the Scotch code gives no money encouragement for singing by note. The rural schools, both in England and Scotland, are much behind the town schools in singing. Town children have military bands and street minstrels piping to them every hour ; village children have little music, and if their teacher be unmusical, their chances of learning to sing are poor. It is just these schools that cannot afford to engage external help. I have met with schools in English agricultural districts and in the western highlands of Scotland where the children are woefully unmusical. Improvement can only be gradual. As the teachers become more musical, they will raise the children.

Singing is generally acknowledged to be a subject requiring special and rather exceptional skill in teaching. In the Paris Communal schools, and in the elementary schools of most of the larger Scottish towns, singing is taught by visiting masters, who are professional musicians. This is the most thorough way of dealing with the subject. These specialists teach with rapidity and skill ; the children are not dependent on the accident of having a musical or unmusical teacher. On the other hand there are some disadvantages in the plan. A visiting teacher can seldom get as good discipline as one of the ordinary staff, and the ordinary staff feel no responsibility in a matter which is taken out of their hands. The School Boards of London, Birmingham, Bradford, Huddersfield, &c., have an officer whose business it is to hold music-classes for teachers and pupil-teachers in the evenings or on Saturdays, and who spends his days in passing from school to school, hearing

the singing-lesson, examining the children, and giving hints to the teachers, who are responsible for the subject. Many other School Boards have engaged a teacher to hold singing-classes for their staff, without giving him any power to visit the schools. Voluntary schools have a difficulty in combining for the inspection or supervision of the subject, but in many cases singing-classes, including the study of method, have been held. In some of the larger voluntary and Board Schools a system obtains which I found at work in Basel, of appointing one of the staff, specially skilled, to pass from class to class teaching singing all day. In many cases the assistant teachers can teach this subject better than the head teachers. They are younger, and owing to the recent advance of musical education have probably begun earlier and studied more. The training college work is improving by rapid strides, and if the students could be made to work before the music-inspector in the practising school, giving a singing-lesson, proving their knowledge of the compass and registers of children's voices, their power to put expression into a school-song, to correct the pronunciation of the children, &c., the effect would soon be felt in the schools.

Although, as I have said, school-singing regards the many rather than the few, it is, nevertheless, highly desirable that boys and girls of exceptional musical talent, wherever they may be found, be taught and trained. Especially should this be the case with singers. In going about the country, I hear from time to time voices of rich promise, which are lost to the country for want of training. The Royal College of Music is said to have two children of artizans among its scholars. This is not a satisfactory proportion. Municipal Schools of Music in our boroughs would be very useful in giving early training to the boys and girls of our elementary schools. Such a school I found last year at Basel. The lessons are very cheap, given at hours when school is not held; the school is subsidized by the town, and the students really consist of boys and girls from the public schools. The Guildhall

School of Music in London is attended chiefly by adults, all middle-class people ; it has no touch with the elementary schools. At Cork, recently, I inquired into the working of a Municipal School of Music formed under the Free Libraries Act—the only one of the sort in the United Kingdom. It is on the principle of the Guildhall School —*i.e.*, the students' fees go to the professors, and the working expenses (£200 a year)—a penny rate in Cork produces £500—are charged on the rates. But the Cork school has no free scholarships, and is not, therefore, in touch with the mute inglorious Beethovens of whom I have spoken.

In the Paris Communal Schools the yearly competitions in singing are a great event. All the schools have to enter ; they compete in sections ; the winners compete again, until at last a champion school emerges from the fray. Sight singing, however, is not a compulsory part of the competitions, and the worst thing that can possibly be done for schools is to set them grinding for several months at one test-piece. I have seen this process going on in the Paris schools, and have heard the teachers confess that during this period they suspend the teaching of theory altogether, the children learning their parts by ear. Last spring I endeavoured, in my own neighbourhood, to organise a school competition which should promote musical study, and not hinder it. Sight-singing was compulsory, and the contest, which was entered by five schools, was successful in every way.

The Tonic Sol-fa system, of which I am an advocate, is well known to you by name. Taking England, Wales and Scotland, only 25·2 per cent. of schools sing by note, but of this number 76·2, or more than three quarters, adopt the Tonic Sol-fa system. This fact is a stronger recommendation of the system than any I can bring. Its first advantage is that it allows the scientific study of music to begin without overpressure, at a very early age. It is the kindergarten idea applied to music. The elements of musical theory can be taught even to infants, and while they are

singing their songs, they can be made to understand how tones are named and measures fixed. In German schools musical notation is wholly withheld from the children until they are ten years of age, and have probably been singing by ear, in the kindergarten and lower standards, for six or seven years. By this means the ear is rendered very sensitive, and a habit of trusting to it is formed. Even the elder children, who understand the powers of the notes, and hold the music in their hands, prefer to sing by ear. The singing is often very artistic and finished, but the reading powers of the scholars are, so far as I have tested them, exceedingly poor. The reason why musical notation is so long withheld in Germany is no doubt because the ordinary staff notation presents great complexity to a beginner. The reason why, by the Tonic Sol-fa system, the youngest children can be taught to read music is, that we use a simple notation of letters, and grade all the exercises most carefully. It would be impossible to do our work in schools without this notation. It is incontestably easier, even for adult choristers, than the staff notation, and is read at sight with the greatest certainty, as has been shown at hundreds of public demonstrations. As our pupils advance, two-thirds of them learn the staff notation, and find the transition to that notation an easy matter, the Tonic Sol-fa shedding a flood of light upon the staff and its symbols. It appears, at first sight, absurd to learn one thing in order to learn another, but we are constantly proving that the surest way to master the ordinary notation is to learn the Tonic Sol-fa first. A great deal of prejudice and misconception surrounds our system. We invite musicians and educationists to obtain their experience of it at first hand, by visiting a class under a good teacher and witnessing the processes used and their results.

MUSIC IN SCHOOLS.

By E. MOONEY.

NOTHING new can be expected from one such as myself about a subject which has been so much discussed as the teaching of music in schools. One can hope at most, by repeating what has been better said before, to evoke opinions from others on some special points, which may lead to practical results. It will be agreed that the musical education in elementary schools, whether as regards its character or extent, can hardly be considered satisfactory. It is practically excluded altogether from the school curriculum, and this notwithstanding the instruction of teachers in Training Colleges, the appointment of musical examiners, and the recent official recognition of the subject in the Education Code. I will illustrate this point by three facts. In one of the finest books on teaching published, which deals with every class of studies and with every branch of school management, and which has been written by one of the very highest of educational authorities, not once, from first to last, is the subject of school music so much as even named. Again, any one familiar with that fearful curiosity of constructive skill, the school time table, well knows how music, where it is allowed to enter at all, is hustled from the company of the so-called "intellectual studies," and is made to take an unused corner, whence occasionally it can be brought out as "a means of discipline" or "a form of recreation." Further, its very place and mode of recognition in the Education Code is a reflection of the altogether undefined and quite irregular position which it occupies in the official mind.

This backwardness of music in the schools has been ascribed, from time to time, to faults of methods of teaching, to inefficiency of teachers, and to the natural inaptitude of children. I would venture to attribute it entirely to the attitude of educational authorities towards the subject.

If the educational system be the outcome of just principles, and it be honestly administered, then music will find its proper sphere, will receive due aid, evolve true methods, call forth able teachers, and find apt pupils. But education has hitherto been governed by the spirit of utilitarianism and subordinated to the exigencies of the politician.

Primary education in this country has experienced two distinct phases. At one time it was thought enough to give to individuals that aid which would enable them to acquire the instruments of education, those necessary elements of culture, which, though necessary, could not be attained by unassisted voluntary effort. The utilitarian interpretation of what was necessary came to mean "the three R's." Here music could not enter. Then educational authorities were brought under the influence, immediate and direct, of the representative system and local option in the shape of School Boards. A sort of dual control was established, armed with the courbash of compulsion. Here begins the second phase. The claim is advanced not only to direct and encourage, but to control and compel in all matters educational. Every child of the poor *must* be taught in the schools to become an efficient citizen. Everything *must* be given to the child which will go to make it an efficient citizen. Enter with a flourish all "the subjects." Music surely comes in now? Not so: the purpose and direction of the changes, notwithstanding their apparent breadth and variety, still are narrow and utilitarian. "The subjects" embrace the elements of "useful" sciences, "commercial" languages and the arts of the workshop, all valuable acquirements no doubt, if obtained, but essentially material and narrow in their scope, and meant to bear directly on what it is customary to call the serious end and business of life—making wealth. Government moulds are made without delay according to the new design, the grinding machinery is set at work, and schools become the licensed manufactories of what the makers are pleased to call efficient citizens! How can music find a place in such a scheme as this? How can it rank with such masculine and soul-expanding exercises as those

which lead straight up to the great goal and intellectual eminence of counting how many farthings make a pound, and what a pound would realise at 10 per cent.?

Has nothing, then, been done? Doubtless, much. Many schools teach music systematically with great success; many more use singing as a discipline and relief to other things; and still a greater number shout for a sixpenny gratuity, and get it. But the fact remains, that although the majority of teachers are capable of teaching singing, the greater number of schools pay no attention to it, and the invariable explanation is, "It does not pay." Work has been done; but it has been in spite of the positive discountenance of the authorities, and has been due mainly to three assignable causes; (1) the persistent individual enthusiasm of Mr. Hullah in the cause of popular musical instruction, coupled with the personal influence of many of H.M. Inspectors; (2) the vigorous and well organised efforts of the Tonic Sol-fa movement; (3) the influence of religious bodies throughout the country.

Where should music then be placed in the system of primary education? it will be asked. I answer: Music must be distinguished in two different capacities, (1) as a means of culture, (2) as a form of special knowledge; and at once I say, that in its first capacity it is entitled to be treated with the three R's as a necessary element or instrument of mental culture. In its second capacity it is equal to any other special subject. One cannot within the narrow limits of this paper give the arguments in full by which one would hope to make good this claim, but the lines may be shown in which they lie.

A man's life cannot be divided into parts and water-tight compartments, the contents of which will not infiltrate into one another. It is one and indivisible. An efficient workman is one whose leisure is a preparation for his work, and that a *means* to the end of both. His whole actions are a harmony and his life is a hymn of praise. Elementary education, if it be worthy of the name, will give, as I understand it, the elements

or instruments or principles of that mental culture which will yield to man the fulness of his life and its purpose. They are the elements of Science, Art, and Religion. The three R's give the instruments by which knowledge can be acquired; Art cultivates the sense of feeling for the beautiful, which vivifies the grosser things of life with spiritual beauty, and irradiates the meaner things with spiritual light; and both are lifted up to meaning and dignity and purpose by Religion. These elements cannot or ought not to be severed. They are the complements to one another. They are the three primary colours which blend and form the living light of the soul.

In this scheme Music would find an essential and important place and would be cultivated for its own sake, for the sake of the power it and nothing else could give, and for which nothing else could be a substitute. In the school itself, there is no form of art which can, like music, beautify the dulness of school life, or, like it, can humanise and civilise the brutal beings who sometimes find their way there. There is no art which cultivates so rapidly a feeling for the beautiful in that which is not seen; hence no art can come so near to the poor and be so useful in the truest sense. In the way that nothing else can it can touch their lowly lives with a sunset glow, and fill their dull bare homes with radiant beauty. In the name of the poor I claim for music an essential place in their education. Here is a question for the counter of counters. How many of the hours of toil are vitiated and destroyed by the hours of misspent leisure? How much discontent has overshadowed silent lives? How many treasons have been hatched by men who have no harmony in their souls? What is the contribution to the public material well-being of him whose recreation rises no higher than the musical indecencies of the comic singer? In a word, how much of the friction of the working machinery of life can be overcome by music? and what can it contribute towards the motive power?

The practical consequences following upon the recog-

nition of music in what I conceive to be its proper place, namely, as a necessary element of education, would be both many and important.

First, examinations of results would be more real and more thorough. The inducements to teach, and the penalties of neglect would be made as great and as exigent as in other studies. Music being made to pay, the utilitarian mind would embrace it with alacrity, and the glitter of gold pieces would throw new light upon the "intellectual" character of the work. It would be realised more generally that while it is a pleasure to listen to good music, yet to acquire the power of its appreciation and production involves a labour taxing every energy of mind and body.

Therefore, secondly, a radical redistribution of the time devoted to the subject in the school would follow. In amount, two hours a week is a modest portion; Mr. Hullah recommends at least half an hour a day. In distributing the time, it would not be forgotten that, for singing, not only must the mind be cultivated, but the voice must be trained to certain physical habits. The voice, like a harp-string to the player, must be responsive to the mind in a delicate and perfect manner; and it is obvious that this can only be accomplished by regular and frequent exercises. Once a week is not enough. The time-table of a certain school presents a square piece of forty minutes cut out for music—the teacher has a geometrical turn of mind—and the children take it in one dose. When the dose has been taken the children are happy in the thought that there will not be another for a week, so great is the love of music which that school inspires! I heard them sing. The school became a howling wilderness, and I felt like Clarence that I would not spend another such a time, "though it were to buy a world of happy days." Again, the children should not be brought to a music lesson, as is usually the case, when they are wearied out in mind and physically exhausted. In no other exercise do they need so much to have their powers fresh and vigorous, and so to speak, all in line. Immediately after the play-time, which as a rule

breaks the meeting into equal parts, would seem to be the point most suitable.

Thirdly, methods of teaching the subject would be modified by a true conception of the objects of musical training. Attention would be directed to three points: (1) voice-training, (2) note-singing, (3) musical appreciation. I will offer an observation on each point.

(1) Children would be taught to sing sweetly and in the proper registers, and thus obtain command over the musical instrument of nature. In disseminating among the people correct principles on this matter, Tonic Sol-faists have done inestimable service, and incalculably more good than by their method of notation. Is it not a monstrous thing that teachers and managers of schools should be paid in many instances 6*d.* a head for physically deforming children placed under their care? They may not slit the noses, but they may crack the voices of their children with impunity. Thousands of children who ought to carry sweetness to their homes are sent there hopeless cripples. Such a practice is worthy to be treated as a crime.

(2) With respect to note-singing, it is clear that acquaintance with and power over the symbols is as necessary to musical intercourse as language is to interchange of thought. While learning to read, however, it is important not to let the form take the place of the substance. It is not unfrequently the case, that where the notes are taught, music is lost sight of, and the singing is mechanical and rough. The strife of "methods" has done much to make this matter of sight-singing loom too large and overshadow other things quite as important. To be as brief as possible on this point, and leaving out of consideration the subjects of time and rhythm, a good system of sight-singing would be tested, I submit, by its scientific treatment of three features of vocal music—tonality, pitch, and the mechanism of the voice. The rival methods which have had most hold upon the public ear—it is said with deference—err in being sectarian in character. They are not true measures of all the facts. Perhaps this is the explanation

of the violence with which their merits are sometimes respectively put forth and challenged. Without going into detail, I will examine briefly two methods by the test just mentioned, and then proceed to give as briefly the reasons of my preference for a third.

Take first the method of Intervals, chiefly connected with the name of Mr. Hullah, and developed variously by others. It begins with what is called an easy interval, "the second," and proceeds through intervals of increasing difficulty to the octave, &c., their difficulty being measured by numerical proportion. Now, what is there in "a second" easier for the mind to perceive, or the voice to sing, than in an octave? Probably an octave is the easier of the two. On what principle is the pupil shut off from the blessed breath of real music till he has served a penal servitude on the artificial crank of "intervals"? Tonality—the stronger feature—is ignored; yet this is the first which a scientific teacher would seize upon whereby to fix associations of impressions made by the various sounds in the mind and voice. Associations, on the other hand, are formed exclusively with the finest, rarest, and most subtle musical sense, and the most difficult to attain—the sense of absolute pitch. Is not this manifestly unscientific? Is it not trying to start from the very difficult to reach the very simple? The sol-fa syllables are used to indicate pitch alone, but the long exclusive practice in the scale of C establishes unconsciously that scale relationship of the syllables which is professedly disowned. The method is ambiguous. To be logical, the only basis for it is the chromatic scale. As with intervals so with keys. What is there in nature more difficult in the scale of B than in the scale of C? A "method" is surely to remove not to manufacture difficulties. It should at most but reflect the difficulties of the subject in their natural proportions. Here the facts are distorted, and this distortion, repulsive and unnatural, is caused by neglect of the element of tonality. The method is a veritable musical Procrustes. There are passages of music in which it would not be clear at once from certain notes what interval was meant,

and the singer of intervals would accordingly break down. The method if mastered is inadequate. But the practice of intervalists, as with sectaries in general, is beyond the theory of their method. They use, unconsciously, associations built upon tonality, while exercises are given with this end deliberately in view; in theory shutting out a portion of the truth, in practice consciously and unconsciously embracing it. In a word, the treadmill of the intervals and the delay of the keys make the process laborious and uninteresting; while success long deferred disheartens and prevents many even professional singers from ever becoming tolerable readers. This is not a method with which to approach children.

Objections to the Tonic Sol-fa method resolve themselves in most minds into such as arise from the new notation. Tonic Sol-faists use tonality alone to guide them. In that it is the most important, most tangible, and most vivid fact in music, the method is more scientific than the first. The order of exposition of the facts is admirable and natural. The method, with the organisation of the movement, has done more to make music popular and pleasant in its study than any other single circumstance. The attention, too, in the courses of instruction to voice-training and to the awakening of musical taste and judgment has made the study full and serviceable. But it is open to a serious objection. In the revulsion from the part-truth of the intervalist, the Tonic Sol-faist exalts out of all proportion a part-truth of his own. The sense of absolute pitch is discarded as a help in reading; but, not only so; with unwarrantable wantonness the very symbolism of pitch is destroyed, and the singer forced to accept every musical fact interpreted by "the method." This is an unpardonable tyranny. Some people have an exquisite sense of absolute pitch; all have it in a fair degree; and this sense is blurred and weakened, if not destroyed. It has no language, not even the silent language of the eye. There is no sign for this feeling, so delicate and so beautiful, to fasten on. It is as a thought without a word. As we saw, the

intervalist imposes a "self-denying ordinance" upon himself not to use tonality, but there is nothing in the symbols to prevent him throwing off restraint and establishing in his mind unnamed but real associations of key relationship. The Tonic Sol-faist abjures the damnable doctrine that one can learn to sing by the sense of absolute pitch alone, and burns his books lest they should prove he can. The weaknesses in the method resulting from this omission of the element of pitch are many, but this is not the place to enter into them.

The new *notation*, as distinct from the Tonic Sol-fa *method*, distorts and mutilates the facts of music; excludes from intercourse in the universal language of musicians; is itself a most imperfect language; is not a simple presentation of the facts, but a Greek chorus for ever interpreting what is presented; more than all, it is an insufferable despotism, which would enslave both music and musicians to a mere singer's method. Would it not be sufficient, as in the earlier days, to apply the admirable *method* to the free unfettered *symbols* in ordinary use? The temptations of the method-maker to subordinate the matter to the method, might well make the distracted singer in search of music through the methods cry out: "A plague o' both your methods." They are, if I may say so, one-eyed methods.

A true and solid view would be obtained by adjusting both eyes to the notes, one eye for tonality, and one for pitch. This is done by sol-fa-ing from the tonic with the Tonic Sol-faists, and using the regular notation, a system which is as old, I suppose, as the notation itself—and one which has formed the largest number of successful readers. The mind hears a tone according to its key relationship; its pitch is felt, and the sign for it is seen. The voice, with its sensations and its efforts, is associated with this two-fold aspect of the tone. The whole of the facts are before the singer in their due proportion, and he adjusts two eyes to look at them. Sometimes he may be mistaken, but his effort is intelligent and generally successful. Difficulties

occur in every method; they are most readily and intelligently overcome in this. Its strongest merit is, perhaps, that this method does not become an oppressive presence, but gradually fades away as power grows, and the singer stands at last with Music face to face and alone. Intelligent, and free, and pleasant, I hold it to be the best for children.

(3) Two words on the cultivation of musical appreciation, the most neglected, perhaps the most important point. First, too much attention cannot be paid to sweet, expressive singing, where the beauties and peculiarities of words and music are known and felt. One piece studied thoroughly, and sung expressively, would prove more educative in itself than years on the treadmill of the intervals. Here, again, the Tonic Sol-fa courses of instruction have been of the highest value. The manner in which scale notes are labelled and ticketed with "effects" seems crude and arbitrary; yet the systematic direction of attention to the mental effects of notes and chords and progressions, awakens a sense of appreciation in children which might otherwise remain entirely dormant. Secondly, I offer the suggestion that children might be provided with models of excellence, to fire their effort and correct their taste. To this end school concerts might from time to time be given, and the hearts of the little ones touched with the fire divine of pure music rendered by trained performers.

Besides the effects in the schools, accruing from a true regard for music as an educational instrument, there would be other consequences extending farther, reacting on the schools, and overspreading all the community. Would the public money, for instance, which finds its way through the Education Department to South Kensington, be devoted exclusively to Physical Sciences and Drawing? The Science and Art Department! Is Music not an Art? Is not the materialistic and utilitarian view of life and education the cause of the exclusion? Is there no one powerful enough to do for music what has been done for the physical sciences and drawing by the Science and Art Department? Is it too much to hope that H.R.H. the Prince of Wales,

who has proved himself so great a friend to music, and who spoke such words of wisdom not long ago, about the re-creation of the poor, may accomplish this through the Royal College of Music, which he founded.

In conclusion, I submit four suggestions which have doubtless found previous expression :—

1. Put music on the footing of an elementary subject in the schools.
2. Give teachers, qualified by their course of training and examination in training colleges, special certificates for music as for science and drawing.
3. Subsidise popular classes out of the grant extended to South Kensington, or from some similar source.
4. Bring the Royal College of Music into such relation with the Education Department as South Kensington, and let it take to itself a popular aspect above its purely professional one.

Such changes would have great influences, immediate and remote, on the musical education given in the schools, altering its standard tone and character ; and in the schools would be kindled the sparks of a culture whose light would grow and shine upon the darkest places in the land.

DISCUSSION.

Mons. GUILHOT, who spoke in French, said that in France, as in all other countries, music had been for many centuries the monopoly of a privileged few ; but it had made great progress in the latter half of this century, from the time when the School Galin-Paris-Chevé (sister society to the English Tonic Sol-fa Association), applying and enlarging the fruitful theories of Jean Jacques Rousseau, had set up the teaching of music based on the *mode*,* in opposition to the teaching

[* It is necessary to explain that by the *modal* system Mons. Guilhot signifies what is called by us the *moveable doh*, and by the *absolute pitch* what we term the *fixed doh*.—EDITOR.]

based on the *absolute pitch*, after the latter had, for a long time, been found impossible of propagation among the masses. Indeed, whilst the founders of the School Galin-Paris-Chevé had obtained splendid results in their public courses, and organised the really popular teaching of music, a number of musicians of the official school, although they bitterly opposed the new school, did not scorn to imitate it, and to borrow more or less openly some of its powerful educational processes ; from that time official teaching had been re-organised, its methods modified, the centres of education made more numerous, the level of the programmes raised, and the choral and musical societies reformed ; reading at sight and musical dictation had been introduced in the lessons, competitions, and examinations ; and altogether official teaching had become at last serious and earnest.

He (Mons. Guilhot) was right therefore when he stated that the great progress made in music in France was due to the new school, and to the men after whom it was named. It had been left to the enlightened liberalism of the Superior Council of Public Instruction, of the Director of Primary Education, Mons. Buisson, and of the Ferry Cabinet, to remove the obstacles which stood in the way of the Galin-Paris-Chevé method. A ministerial decree of the 23rd of July, 1883, fixing the programme of the teaching of singing in primary schools, had authorised the use of the musical notation adopted in that method. This was a great triumph for the cause of musical education in France, for the two systems could now be compared in primary schools.

Notwithstanding what had been said by the gentleman who spoke before him, Mons. Guilhot thought that the method based on the *mode with a variable pitch* was the method of the future, the *absolute pitch* having, by daily experience, been proved to be a pure fiction.

The musicians belonging to the "*fixed doh*" school had said to those who considered before everything the relations of the various sounds to each other : " When we listen to

the sounds you produce, and which bear names other than those which ought to be given to them, considering the vibrations of the tuning-fork, our ear experiences the same painful sensation as that produced by an untruth on an honest conscience."

On behalf of the new school (Tonic Sol-fa and Galin-Paris-Chevé), he retorted with the same argument, or rather sensational sentence, and asked them: But where was to be found that *absolute pitch* which they advocated, and which did not grate on their sensitive ears? The replies which had reached him on all sides pointed to the greatest confusion.

Every nation in the universe had its own pitch based on a different number of vibrations, and it was the same with the different towns in the same country, with the different theatres in the same town, with the different manufacturers of the same kind of instruments, with the various instruments of the same makers, and so forth.

Let them listen to orchestras, and bands of music, to the excellent band of the Guards in the Exhibition. Clarionets were in E flat, B flat, A flat; flutes in E flat, D flat; cornets and horns and the numerous brass instruments in E flat, F, and B flat; yet all those instruments played together, and proved that the theory of the *fixed doh* was a vain one, constantly disproved by practice, the performers on such instruments being compelled to read and to play in tonalities different to the true key, in order to play in tune with the strings.

The advocates of the *absolute pitch* method should be mindful of the extreme and fatal consequences of that system. If they were desirous of being logical and true to their principles, they should disown all the artists who played on the instruments he had just mentioned. And how painful it must be to them to listen to performances on these mendacious instruments, whilst the partisans of the *modal method* were delighted by them. But no! their ears were not hurt; and they were not consistent because, whilst theoretically asserting that the *absolute pitch* method

was the only one with which true musicians could be trained, they partly put in practice the *modal system.*

The *modal* school, whose cause he was defending, on the contrary, loudly denied that there was such a thing as a *fixed doh,* and only acknowledged theoretically and practically in its teaching the *mode with a variable pitch.* It was thus and by the pure application of its theories that the new school was enabled to diffuse a knowledge of music among the masses, among those who had not the slightest acquaintance with that science.

The teaching of singing being now well on its successful career, they were engaged in extending the advantages of their system to instrumental music ; and their first efforts were directed to the playing of the pianoforte, whose popularity was ever increasing.

Fully alive to the difficulties attending the study of the harpsichord on the *fixed doh* method, Jean Jacques Rousseau had endeavoured to remove them ; and in his works had mentioned his intention to apply the *modal* system to the study of that instrument ; but the irregular position of the keys for sounding the twelve semitones of the tempered scale was then too great an obstacle.

However, by adapting the *modal* system to the keyboard invented by Mons. de Boisgelou, a contemporary of Jean Jacques Rousseau, all the difficulties vanished and the question of the *modal* piano was solved.

On the Boisgelou keyboard the twelve keys of each octave were regularly distributed, six being on the first row, and six on the second row ; the first six keys consecutively touched give intervals of one tone (major seconds) ; and the other six, placed above the first, alternated with the latter and produccd intervals of a semitone (minor seconds. This keyboard had a uniform appearance ; an easily movable indicator, to displace which required no more time than was necessary to turn over a leaf in a music book, showed the starting point of the mode. The ordinary keyboard required practice in twelve different fingerings for each hand for the tonalities in the major mode, and as

many again for the tonalities in the minor mode, whilst one fingering for each hand for the major and minor modes answered all requirements with the *modal* keyboard.

The *modal* keyboard would also afford great facilities for fingering for small hands unable to cover the octave on the ordinary keyboard, and to long-fingered hands who would be able to reach the tenth or double third. Piano classes, now almost impracticable, would become as easy to form as singing classes.

The study of scales, each of which with the ordinary keyboard required a different fingering, often disheartened students, who in many cases gave up (to them) an unprofitable study. With the *modal* piano, the students could, from the first lesson, perform, without trouble, every exercise in any possible key, and, encouraged by the result, would persevere in their studies.

Transposition, so difficult and so seldom accurate with the ordinary keyboard, would be infallibly correct, and, so to say, child's play with the *modal* keyboard, since the instantaneous sliding of the indicator would enable the performer to play a piece of music in any key without his having to change either the signs or fingering; that simplified transposition would be one of the greatest advantages of the *modal* keyboard, especially for amateur parties, when singers generally had not the vocal resources of professional musicians: (there was to be seen in the French section, Room 8, a rude reduction of a *modal* keyboard).

To conclude, past experience had proved that with the *fixed doh* system, notwithstanding the merit of the teaching methods and the ability of the professors who applied them, music could only be learned by the minority of people. By the *modal* system, on the contrary, every one would be able to explore the serene regions of the Promised Land of Music; none would be excluded; all were called, and all would be chosen!

Mr. FARMER, after having described some of the difficulties he had had in introducing music at Harrow nearly

twenty-three years ago, said with regard to music the public schools suffered from the want of elementary training. The boys who came up to Harrow were nearly all in their fifteenth year, and there were few treble voices amongst them; but what was worse, they had had little or no previous musical training in preparatory schools. It was therefore very hard and trying work to make music a special subject. He would tell them how he did it. He began by singing songs on almost every conceivable subject interesting to boys. By this means he got most of the five hundred and fifty boys to take an immense interest in music, and there were also a large number of volunteers who came to him afterwards and wanted to know something more about it. Out of the five hundred odd boys, no less than one hundred and twenty were learning to play some kind of instrument. He formed a brass band and orchestra, and found that was the best way to get them to read music at sight. But one thing he could promise them: if they went to Harrow they would find that the study of music was respected there, and that it was not regarded as a thing of secondary importance He had boys who had played everything from Bach to Brahms in pianoforte work, and who, when they went to Oxford and Cambridge, took very high positions, and they acknowledged that the study of music in Harrow required as much perseverance, self-sacrifice, and every quality, as anything that they did for their scholarship. He had only to suggest that they should all persevere in getting music taught in elementary schools so that the boys might have some knowledge of the subject before they came to a public school. Mr. Farmer also recounted his experiences of Leipsic and Zurich, where, he observed, music was not a theory but a living practical thing. When he was in Zurich he put the children through exercises in the old notation, which they easily read at sight, and when the treble and second parts were exchanged they read them also without mistake. Though this might appear

hardly credible to the friends of the Tonic Sol-fa principle, the ease with which the old notation was read by children could be ascertained.

Mr. SEWARD (New York) said that the musical report from the United States was far from favourable. In fact it was most unfavourable. There were not the means of acquiring statistics there as there seemed to be here, or else people were not so interested in securing them. The great proportion of country schools did really nothing with music, and there was no inducement held out to them in the way of grant or anything of the kind. In the large cities, however, great attention was paid to the subject, and teachers received large sums. But things were not in a satisfactory condition. It was not found that the masses of the people were developing any musical intelligence, or that the children gathered together in little groups to sing because they found it easy and enjoyable. Admirable results were, however, shown in the schools by the teachers, from which hope might be gathered as to the musical future of the nation. A generation ago they had the assistance of a man whose genius for teaching was remarkable, and the impulse of his mighty hand was felt, but when that was withdrawn they fell back. The system he introduced, and so to speak filled them with, was the very system which Mr. Mooney had so ably and strongly advocated, that was to say, it combined all the advantages of a tonic principle connected with the old science. The meeting had been told of results in Zurich where, with the use of the system of staff notation, the children seemed to do wonderful things; but in America it was found that it did not do to look to a few exceptional cases where the very best advantages were afforded for general results. The staff system, as a system of education, was unphilosophical and uneducational, because the signs had perpetually changing meanings, and the poor little children were consequently placed at a disadvantage. He himself had used the staff system for twenty years, but he found that for some reason he did not obtain good results. He worked

hard. For the past four years that he had used the Tonic Sol-fa system the results were quadrupled. He was reminded of the story of the Irishman who wrote home that America was a delightful country, for all he had to do was to carry a hod up a ladder, and the fellow at the top did all the work. He used to do all the work, but now he had, speaking figuratively, an engine to do it. They were beginning to think in America that if the worst came to the worst it would be possible to suppress the old system of teaching music on the ground of cruelty to the children. One of the best educators in America said to him the other day that no one who had not used a system of teaching six months had any notion with regard to it. He ventured to assert that the gentleman who presented the other side in such an interesting manner that he (Mr. Seward) was quite carried away with it, and was not quite brought back yet, had not used the Tonic Sol-fa system for six months.

Mr. MOONEY said he was sorry to contradict Mr. Seward, but he certainly had used the Tonic Sol-fa system for six months, and more than six months.

Mr. SEWARD said that he had tried for the past four years to find out those who had used the system thoroughly, and who understood it thoroughly, who were opposed to it, and had never succeeded in finding one. He would give them a little bit of history with regard to the question on his own side. The Tonic Sol-fa system had only been introduced very gradually, beginning about four years ago. Taking the whole of the country through, there were now many schools who were using the system. At the annual meeting of one of the State Public Teachers' Associations this action was taken. A committee of three was appointed to examine the Tonic Sol-fa system, and report to the next meeting. They prepared a circular of inquiry embodying a most exhaustive series of questions, and sent it broadcast to all whom they could hear of as having used the system at all. The chairman of the committee informed him (Mr. Seward) that he had received thus far about six hundred replies from all parts of the country, from Maine to

California, from the Atlantic to the Pacific, and in not one was a word said in opposition, but all were strongly in favour of the Tonic Sol-fa system. Could a less prejudiced jury than that be imagined? He was sure that the Americans had only to see the beauties of the system to at once adopt it, and he would prophecy that after thirty or forty years' experience of this system its merits would no longer be a vexed question. From a musical point of view, the nation that adopted a simple philosophical educational system was the nation which would succeed.

Mr. DEMPSTER (of the Education Department) said that one thing that had struck him in going round the schools was that teaching children to sing by note might not be quite such a valuable thing as the general public might suppose. Very often the ear-tests were devoid of anything like sweetness in the singing, and afforded no evidence as to the smallest power of managing the voice. In several cases he had been disappointed at finding that infants who performed their mechanical tests most accurately discovered an utter absence of anything like sweetness or taste in their ordinary school songs. He did not wish any one to infer that this want of taste sprang from the children having acquired some success in singing by note; but it did seem in such cases as if the mere paying mechanism of music was attended to, to the exclusion of all higher thoughts in connection with the subject tending to elevate children. Having commenced by throwing cold water on the Tonic Sol-fa system, it was only fair to say that going beyond the infant schools and into the schools for elder children it would be found that music had made rapid strides even within the last few years in connection with the teaching of the Tonic Sol-fa system. It was now no uncommon thing to find the elder children singing with wonderful accuracy, and with great feeling, songs which had been learned on the Tonic Sol-fa method, with which, but for that method, they would not have become acquainted. He anticipated great results from the intelligent teaching of the Tonic Sol-fa method, and he felt sure that the day was comparatively

near when they would find the mother in her poor home —not crooning over the baby some of those wretched songs that too often filled the streets—but singing something tasteful and sweet, something which, besides sending the baby to sleep, would also raise better feelings in the bosoms of the father and mother.

Mr. MILLER (Glasgow) said he honestly felt that in attending this Conference he had wasted both his time and his money. Very little that had been said bore upon the practical teaching of music in schools. The papers were all excellent so far as they went, but the subject which brought them here to-day had not been touched. He himself wanted to hear something as to how the children were to be taught. How was the singing of the children at school to be improved? He was very much disappointed with the papers, as bearing upon the work which they were met together to consider. He had been teaching in schools and Bands of Hope for the last thirty years. He was not especially what might be called a Tonic Sol-faist. What he wished was to be a musician, and to promote the instruction of music in schools. He was quite prepared to discuss that method with Mr. Mooney. When he began teaching schools he had met with very considerable difficulty. He visited them once a week, and the children looked upon him as a kind of outsider. The children appeared to have the notion that music was nothing but a pastime, and the other teachers encouraged that opinion, and said that music merely gave a little pleasure to the children. Ordinary school teachers were wanting, as a rule, in the enthusiasm which was possessed by professional men. How could the enthusiasm of the professional man be combined with the method and discipline of the regular teacher? The Glasgow School Board had solved that question. About ten years ago he was asked by the Glasgow Board to draw up a scheme of instruction for the schools. After a conference with Dr. Hullah, he recommended the Glasgow Board to institute daily exercise for the children, and to appoint professional men who

would visit the schools at least once a fortnight, who would chalk out the work for the teachers, giving a lesson if required on any particular point. Daily work was also arranged so that the teacher could not only hear what had been done during the fortnight, but might see that the work he had sketched for that fortnight had been properly accomplished. That was the method carried out in Glasgow with the various visiting masters, the children, as a rule, receiving a quarter of an hour lesson on music every day. From the infant-room to the senior-room all were taught to read from notes. He considered it very important in the teaching of music that the infant department should be especially attended to. If it was not attended to in the infant schoolrooms it would be found much harder work when the boys and girls had attained the age of fifteen or sixteen years. Mr. MacNaught and Dr. Stainer would both bear out the statement that it was far easier to teach the younger children to read their notes than to teach the senior classes. They should begin in the infant-room not by teaching musical signs, but by teaching musical sounds, letting the notation come afterwards. If they began by teaching musical notation they would fail, and find that they could not get on. Let them teach music by sounds, and they would be sure to succeed. When he visited the Glasgow schools, in order to report on the subject of music, ten years ago, all the schools professed to teach music by note, but there was only one department in all the schools in Glasgow under the Board which could really read an ordinary syllabic tune. But what was the state of things now? At the present time if the Glasgow Board opened a new school a visiting master was sent to arrange the work. The teachers set the senior pupils to work reading from notes right off, but with the infants they had of course to begin at the beginning. The singing of infants was a very important matter, but there was one question connected with the singing of infants which required special notice. Female teachers encouraged too many motion songs, which really did more harm than anything else. The sooner they get rid of motion

songs the better for the health of the children and for the teaching of singing.

Mr. CLARK said he had been a practical teacher of the Tonic Sol-fa system for thirty years, and he believed that he had been the first to introduce it into the "black country." He was very glad to hear Mr. MacNaught speak of the present standard as reasonable. It followed from that that if there should be an advance upon the present standard after September of this year it would be unreasonable. He hoped that remark would sink into the mind of Dr. Stainer, who was the adviser of Her Majesty's Government, and that instead of having the standard raised any further, they would be allowed to go on as they were doing now. He believed that in his own neighbourhood excellent work was being done by means of the Tonic Sol-fa system, and he was confident that if the standard was raised too soon that work would be interrupted, and more harm than good would be done. As had been mentioned, the cultivation of the Tonic Sol-fa system was not necessarily compatible with moral influence of another sort. He was afraid that if too much importance were attached to the teaching of the Tonic Sol-fa method other portions of musical culture, which were quite as essential, would be neglected. There was no evidence in history to show that the mere reading of music by sight exercised a high moral influence unassociated with the very best poetry. The reading of music at sight was no doubt very important. He had children in his own school who could read exceedingly well, and he attached great importance to it, but he attached still more importance to the cultivation of music allied with beautiful songs and beautiful poems. Another matter upon which he wished to speak had reference to the financial question. He was told by one teacher that where he had gained *6d.* per head in music he had lost *1s.* per head in grammar. If the one followed as a consequence of the other, he was afraid the teacher would be disposed to consider the monetary aspect of the question rather than its civilizing aspect. If music was to be made

a compulsory subject, it followed that less time could be spent on other subjects. In the elementary schools of England seven or eight hours a week were devoted to arithmetic alone. There was no other country in the world where the same amount of time was devoted to this subject. The great amount of time devoted to one subject necessarily left but very little time for another. In music, as in other things, *festina lente:* it was a good thing to make haste slowly, and he thought that if the Code was not too exacting the introduction of this subject would prove to be a good thing. He prophesied that if the standard were not raised too high, the teaching of the Tonic Sol-fa system would become almost universal in the elementary schools in the course of perhaps two years.

Mr. EVANS said that the teachers of the London School Board did not spend their time in discussing systems and methods of teaching, all their time was given to the work of teaching music. The question of method was settled a long time ago. He could not help remembering a word or two of Dr. Hullah's when listening to the last speaker. He came to some of the Board Schools, and after testing the results himself, he said: "Why do not you do this by the staff notation?" Mr. Evans replied: "Dr. Hullah, can you tell me any school that I can go to where I can see the same results that I have shown you, which have been produced by the staff notation?" He remembered Dr. Hullah's shrug of the shoulders as he replied: "I do not know one." I have frequently said: "I think it is a great pity, now that there is so much to be done for music, to spend so much time in discussing methods; let us get to work." If staff notation had been the best thing it would have been proved by its use in all the schools to-day. It would have prevailed by reason of its own merits. But it had failed, and the Tonic Sol-fa system had taken its place, and had certainly done what it could not do. But, said the doctor and other teachers: "Oh, but it could be done." But the Tonic Sol-faists did not talk that way. They did not say "It can be done," but "It is done."

When the same could be said in regard to the staff notation, then perhaps some attention might be given to it for school teaching; but at present they could not afford the time. Teachers from all parts of the country had come to him (Mr. Evans)—some with a knowledge of Hullah's fixed Doh—others with the movable Doh. School Board committees would, he thought, soon settle the question of method if they would do what the London School Board did. The Board said in effect: "Teach by whatever method you like, but give us the results." He (Mr. Evans) also said to every new teacher: "Teach by whatever method you like; I am not going to advise you, but we must have certain results." One would perhaps say: "I do not know the Tonic Sol-fa." To which he would reply: "I have not said anything about the Tonic Sol-fa; teach by the staff if you like it better." Some would prefer the fixed Doh, and he would tell them to teach by that, adding: "When I come to examine your school I shall give certain tests." "I think that is too much to expect," said the teacher. To this he replied: "You would not like me to insult you by giving you easier tests than I give to the Sol-fa teaching." Another man said: "I teach by the movable Doh." "Very well," he replied, "if you like, teach by that." The fact was he was told that the staff notation was too difficult. It took too long a time, and especially with little children, and was very tiresome to them to learn. "Very well, then," he said, "but mind this; you must not shelter yourself behind that as an excuse." He also told teachers that they must teach by note and not by ear. Another teacher said he did not like the Sol-fa system; but as he did not appear to know much about it, he (Mr. Evans) told him not to be prejudiced about a thing he did not understand, but to give it a trial. Out of about four thousand teachers he could not put his finger upon one that had begun the Sol-fa teaching in his school that would be willing to give it up. He could, however, point to many who had given up teaching by staff notation, because it did not enable

them to compete with those who had adopted the Sol-fa method. He hoped that ladies and gentlemen would not run away with the idea that he and others were Sol-fa mad. He used the system because it enabled them to teach music, and they thought more of music than of the Sol-fa system. If it were not that it helped them to teach music, he, and his friends also, would give it up immediately. It was only because that system helped them to teach music successfully that they preferred it to anything else.

Mr. RAMSEY COOPER (Canterbury) said he wished to be allowed, as Dr. Hullah's name had been mentioned, to say what a debt of gratitude the country owed to the late Mr. Curwen. Ten years ago he (Mr. Cooper) made an experiment in order to ascertain the best method for teaching, and which the organist and choirmaster of Canterbury Cathedral kindly permitted to be made with his choristers. By a system of staff notation on the Tonic Sol-fa method, the boys were able to read at sight what the boys taught on the "fixed Doh" failed to do. In another case, two schools had been trying for the grant on the Sol-fa method for twelve months, and he encouraged two others to try on the system of staff notation though they had only two months to work in. The two latter got the grant, and the Inspector expressed surprise at children so young taking the intervals so firmly. Of the two schools taught on the Sol-fa system, one took the grant and the other failed.

The CHAIRMAN (Dr. Stainer) said he thought that the practical result of the discussion would be that in the future their attention would be directed to one or two very important things. First of all he would say that he thought that the question as to the system to be used for teaching in schools was of the very highest importance. Those in this room who had to do with the teaching of singing would, he hoped, give it very full attention. Another consideration had reference to the character of the music to be taught in the schools, and he knew that many of the public felt very

strongly about that. The music should be of a character suitable for small children, to whom it availed little to teach the Hallelujah Chorus, or one of Mendelssohn's two-part songs. At the same time he would be sorry to see the children singing songs which were not of an elevating character. An important question was whether it was possible to train the infants' voices in sweetness at the same time that they were being prepared to be tested. In Germany, according to Mr. Curwen, the voices of the children were trained, and the teaching of the notes was left till they were older. That seemed to be rather a dangerous plan, and it was a question certainly for further discussion. Another point was as to the practicability of the Code. The full force of the Code would not come into effect until after next September. The real difficulty, as various teachers had pointed out to him, was in starting a thing of this sort. If he had a school of his own he would be inclined to give his masters and mistresses three years before going in for the full grant. From the results that were coming forward now he took it that the Code was not condemned on the whole by the masters and mistresses of England. If it were condemned, he would tell them what he should do. He would try again with another one. Another question had reference to how far the musical training of the students in Training Colleges could be raised. That question was also one of great difficulty. The amount of work the students got through in the two years prescribed for them in the training colleges was something enormous, and he could not really find it on his conscience to say that he wanted them to do more music. All he could hope for was that in the time to come they would come up to the training colleges with more knowledge, and simplify the laborious task which music-masters had at present. He had been exceedingly struck by the patience and hard work of the teachers of music both in the mistresses' and masters' training colleges. It had been a source of very great pleasure to him. They worked with a zeal which deserved the greatest credit, and

therefore he regretted as much as anybody that such bad material should sometimes be sent up. He hoped that in future their hands would be lightened of some of their present labour, and they would be able to give more attention to the higher musical education. He confessed that it had given him pleasure to find that other conditions of the subject besides elementary school work had been illustrated. He was very glad to hear Mr. Farmer's remarks about Harrow. There again the remark about material applied, and Mr. Farmer, it appeared, could hardly do otherwise than find fault with the material which was sent up to him. It was to be hoped that some day a better influence would pervade the preparatory schools. The preparatory schools, like other schools, wanted to get in money; and so long as parents only wished their boys to carry away prizes for Greek and Latin Essays, and to obtain scholarships, so long would the study of music have to be carried on in play hours. Under these circumstances they knew exactly what happened. If a boy studied in play hours he did it at the cost of that which was necessarily required for his health. Mr. Barrett's paper was also very important, as showing the position of music in the middle class schools. The other papers stood upon their own merits, and Mr. MacNaught's long array of statistics would probably give some of them a nightmare. As to Mr. Mooney, he must confess that he had been a little unable to follow him in all he said. No doubt Mr. Mooney had a great deal to say that was very valuable; but the paper seemed to him (Dr. Stainer) to be a sort of mediæval tilt at everybody and everything, and everybody apparently got knocked over. As regarded the dreadful question of money, several great minds had given their attention to that subject; and he rather thought that the term utilitarianism was one that in many ways deserved respect. If a man working all day long with a pick, said he was simply working for a meal for his wife and child, he (Dr. Stainer) thought that was just as noble work as if he had some wonderful ideal

for which he was working. With regard to the attitude of the Department, he would like to say a word in regard to the inspectors. He had the opportunity of, as it were, feeling the pulse of the inspectors as a body throughout the kingdom, and he was bound to say, although there might be one or two exceptions, that he thought the inspectors were loyally trying to carry this code through. The former musical coldness of the Education Department was very properly found fault with by Mr. Mooney. But the character of the Department was now changing very rapidly in all respects. Those who knew anything of the working of the Department would agree that it hardly deserved any attack made upon it. Of course it was easy for any one to sit down and write a paper loaded with advice. It was easy too for a man to sit down and write an article, pointing out what Austria ought to do to France, what France ought to do to Germany, what Germany ought to do to England, what England ought to do with Egypt and so on, but for the ministers of any of these countries to act was a very different matter. The Education Department spent a vast amount of money, and he thought spent it well. Some consideration he thought was due to the Department, which for its own part was prepared to give the highest consideration to the study of music.

Dr. GRAHAM proposed a vote of thanks to Dr. Stainer for his conduct in the chair. They all knew his great merits, and the reason he was appointed to the office in the Education Department, which he now held. Every person who came under Dr. Stainer's jurisdiction had reason to be gratified and proud of having so able a man to deal with.

Mr. BARRETT seconded the proposition, which was carried by acclamation.

The following paper was received too late to be read at the Conference.

MUSICAL INSTRUCTION IN KINDERGARTENS, PRIMARY SCHOOLS, AND NORMAL SCHOOLS.

By A. LANDA,

Instructor of Music in the Schools of the Town of Brussels.

Music from an educational point of view.—Music is eminently attractive. It is an element of sociability, not only charming our senses but also forming an object of interest for our intelligence.

As a social and moralizing agent music plays a most important part, for is it not the best auxiliary for inspiring us with delicacy of feeling and with admiration for the beautiful? Thus, a method for bringing about the moral improvement of the working classes consists in establishing numerous vocal and musical societies. Again, music renders immense services in correcting careless articulation and faulty pronunciation. The study of music now ranks among our manners and customs, and for this reason ought not to remain the privilege of the well-to-do classes, but be spread among the people.

The best means of popularizing music is to render obligatory its instruction in all Infant, Primary and Middle Class Schools. Professors and Governesses from the Normal Schools are especially called upon to spread a knowledge of the principles of this art.

The teacher by reason of his scholarly, scientific, and literary knowledge, exercises great influence over the moral development of the child ; on the other hand, by reason of his musical knowledge he holds in his hands the means of enlisting in the cause of music not only youths but men of all ages.

Choral singing, with its imposing character and its artistic interpretation, is another real cause of influence. In the programme, great development has been given to all branches of instruction, and the curriculum in the Normal Schools has been greatly extended.

Music could not fail to join in this movement, and this is why the Government has extended to the instruction in this accomplishment such facilities as will permit of every Normal-School pupil acquiring sufficient knowledge not only to successfully teach the practical and theoretical elements, but also to continue alone his musical studies, which the limited hours at school only allowed him to commence. Teachers must not only educate themselves but must learn to instruct others. All their efforts should be directed towards this aim, in order that music as taught in the Normal School may have a special object, which by its nature largely adds to its importance.

On leaving the Normal School the pupil will have acquired a sufficient idea of the practical difficulties which await him, and of the means for solving them, through the numerous lessons given in the school of application by the third-year pupils, and by the didactic lessons, which being always followed by a critical survey of the lesson, often furnish the professor with opportunities to tender advice from both a professional and a methodical point of view.

Music in Kindergartens.—A taste for singing manifests itself in children from their earliest days. They love music, and it is by giving them tunes to listen to, and then teaching them to repeat them, that one develops in children the sentiment of melody, thus preparing them for the study of music.

Singing in Kindergartens being taught by ear it is important, on account of the extreme fragility of the children's voices, to use the greatest prudence in dealing with the songs taught, and to submit them to certain rules from which the composers ought never to depart.

The words should form the theme for a chat. They should be simple, graceful, and devoid of all abstract expressions. Rondos, gymnastic marches, natural pictures, exhortations to work, love of family and country, such are proper subjects for the development of the children's intelligence and hearts. The melody should be easy without being trivial, correct in form and good in rhythm, with natural

pauses for respiratory purposes, and should especially never exceed the average pitch of an infant's voice.

If the musician strictly adheres to these rules, if the teacher scrupulously observes them and gives the lesson in a prudent and methodical manner, the singing classes will not only prove a pleasure to the children, but will be found conducive to their good health. They will expand the lungs by imparting progressively greater amplitude and activity to the respiration. Singing during gymnastic exercises is rather fatal than useful to the voice. How is it possible for a child while moving arms and legs, or running at the quickstep, to sing with any degree of satisfaction and to pay attention to all the instructions of the musical professor?

Singing during gymnastic exercises has for its object the acquisition of greater regularity in the various movements, but the gymnastic teacher would obtain this result without having recourse to singing, by simply beating time with his hands. In connection with gymnastics, singing can only be usefully employed during marching exercises. In this case it not only serves to mark the time, but it inspires "go" and gaiety.

Music in the Primary School.—The author of the programme of the primary schools, who has placed music on the same footing as the other branches of education, i.e., by rendering it compulsory, had especially in view the services which music is calculated to render, both to children and adults, and, by reason of this, to the working classes. All children sing, if even they have never received any notion of music. Thus the singing class at school becomes a pleasure and a necessary recreation after the fatigue occasioned by other studies.

Singing lends vigour and clearness to the articulation, correcting faulty pronunciation, rendering it free of mistakes, and often elegant. It is principally from the ranks of working men's families that choral and instrumental societies are recruited. The study of music has frequently been known to open up a career to certain gifted natures.

How many youths have not commenced their musical studies at the primary school, finished them brilliantly at the Conservatoire, and become artists of very great merit? The Municipal Government of Brussels lends encouragement to pupils who by their dispositions are called upon to embrace a musical career. In order to facilitate the following of the classes at the Conservatoire and at the primary school, it has organised so-called *half-time* classes on the basis of what exists, I believe, in England, i.e., that half a day is devoted to attendance at the school, and the remainder to attendance at the Conservatoire.

Programme of the Primary School.—In the schools, the course of music comprises three divisions or degrees. The elementary degree is composed of children of six to eight years of age, who learn only singing by ear. The attention of the professor is called to the choice of words, the melody, the rhythm, and the expression. The second or middle degree embraces children aged from eight to ten years. The programme comprises, as in the elementary degree, songs taught by ear, and beside these, exercises of intonation by means of the Dessirier formulas (to which I allude further on), and easy exercises in vocal music (*solfeggiamenti*) and oral dictation. The third or superior degree is composed of children of ten to twelve years of age. This programme comprises exercises in intonation, also, through the medium of the Dessirier formulas, the alterative signs, and the major and minor scales. Also vocal music, introducing the point, the connecting link, the syncopation, and the triplet, the ordinary simple and compound measures, oral dictation, and the execution of songs in one, two, and three parts. The professor should devote at least a quarter of an hour of each lesson to chorus-singing. Every year the pupils of the superior degree, 700 or 800 in number, sing in public (boys and girls) on the day of the ceremonial distribution of prizes, and during the fêtes, give a concert in the park.

In the programme, the greater part of the lesson is devoted to practical work, i.e., singing. The professor

causes to be analysed the lessons which the pupils have sung, and thus theory explains what practice has produced. The explanations given should be concise, easily understood, and, as a rule, illustrated by examples and comparisons, in order to excite a spirit of observation among the pupils.

Adult Classes.—Musical classes for adult learners (men) are organised by the administration of Brussels. The lessons are given twice a week, on Thursday and Saturday, from 8 to 9.30 p.m. (These days have been chosen because there are no ordinary evening classes on Thursday and Saturday evenings.) The programme includes the study of the keys G and F, and especially the study of choral singing. When among the learners soprano voices are found, songs for mixed voices are studied, i.e., three- or four-part songs for men's and children's voices. The Communal Administration, (Municipal Government) of Brussels, has instituted literary and gymnastic, and choral and instrumental clubs. Scholars are not obliged to join these clubs. The only members admitted among scholars are those who attend either the day or the evening classes.

By means of a small subscription (one halfpenny per week) paid by each member, each club establishes a fund at the Savings Bank, and when the amount deposited reaches the required sum, a Municipal Bond is purchased therewith. Meetings of the pupils attending the day classes are held on holidays, i.e., Sunday morning and Thursday afternoon. Meetings of adult learners take place in the evening.

The moral benefit of these clubs is obvious. Children, instead of running about in the streets on their holidays, meet together and study vocal or instrumental music. As for the adult learners, these meetings teach them sociable habits, while keeping them away from public-houses and card-playing. These various clubs give musical, gymnastic and literary fêtes to which parents are invited, and occasionally take part in charitable entertainments.

Programme of the Musical Classes at the Normal School.—At the commencement of this paper we have pointed out the great importance of an intelligent and methodical musical education. We have demonstrated the necessity of spreading this instruction among the masses, using as auxiliaries the teachers leaving the Normal School. The new programme, successfully applied, will enable them to acquire the necessary knowledge with which to fulfil this mission.

The study of singing is essentially based on the intonation and intuition of sounds. The method employed is that of Dessirier (a French musician, and the author of the formulas bearing his name). They develop not only the memory of sounds, but also the hearing and vocal faculties of the pupils.

The process has for several years been employed with the greatest success at the Royal Conservatoire at Brussels and in the Parish Schools at Ghent. These formulas, seven in number, are extremely simple and short melodies, always resolving themselves on the tonic note or its octave, and starting from each one of the notes of a scale. The melody of each of the formulas, very easy of retention, is the same in all the major tones, and in order to sing them in another tonality, it suffices to transpose the name of each note, taking as a model the "type" note of C major. In the minor mode, the tierce and the sixth being minor, a slight change takes place in the constitution of the formulas. The object of these formulas is to enable pupils to sing without hesitation, while naming the notes, the sounds of a piece, no matter what intervals it may contain. They arrive at this from the moment when they are thoroughly grounded in the constitution of the formulas in the major and minor tones.

Oral Dictation.—Oral dictations comprised in the Normal School programme are employed to complete the development of the study, and the intonation of sounds. The professor vocalises, or produces sounds instrumentally; the pupils give the intonation of them, first by singing the

formula of which the given sound is the key-note. Later on the intonation of the sounds is given without employing the formulas.

Written Dictation.—Rhythmical knowledge is developed by means of written dictations. The pupils have little to do with the sounds, as the dictations are invariably given on the notes *do re mi fa sol* (c d e f g), without using detached degrees. When the professor gives out the notes of a melody which the pupils are to reproduce on paper he accentuates the stronger notes, and thus they are enabled to take down rhythmically an easy song that they have heard. This plan gives excellent results, as the process, being absolutely intuitive, and based entirely on the powers of observation, warmly interests learners.

Scale Formation.—The formation of the major and minor scales of the three types is taught in a thoroughly intuitive manner by means of the following Tables :—

DIATONIC, CHROMATIC AND HARMONIC TABLE OF NOTES.

| | | |

TABLE OF THE MAJOR SCALE AND OF THE MINOR SCALES OF THE THREE TYPES.

Major Diatonic Scale . . . . . 1 . 2 . 3 4 . 5 . 6 . 7 8

Mixed Minor Scale, 1st Type . . 1 . 2 3 . 4 . 5 6 . . 7 8

Ordinary „ „ 2nd „ . . . 1 . 2 3 . 4 . 5 . 6 . 7 8

"Antique" „ 3rd „ . . . 1 . 2 3 . 4 . 5 6 . 7 . 8

The figures placed above the small bars represent the degrees of a scale, the relations which the various scales bear to each other, as well as the different intervals which they contain. The point, or dot, between two bars, indicates the half-tone between the two notes :—

c c♯ d c d♭ d f f♯ g f g♭ g

Therefore two bars, between which there is no dot, thus:

— —

represent the minor second. Two bars with dot, thus:

— . —

represent the major second. Finally, two bars with two dots, thus:

— . . —

represent the augmented second.

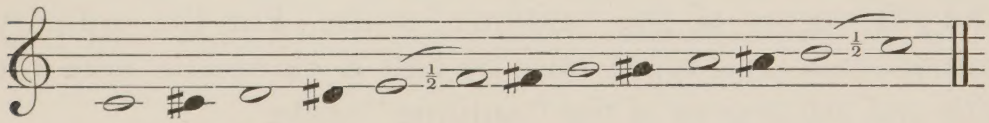
All the intervals, with their qualifications, contained in the different scales, are represented by means of this Table. It is absolutely necessary that pupils should be acquainted with the composition of minor scales of the different types because they have to analyse various written pieces in the two modes, as also the intervals of which they are composed. The minor scale of the third type is taught immediately after the major scale; then comes the first type, followed by the second.

The Keys.—The theory of the keys is mentioned in the programme of the second year, as the study of the key of F is included in the curriculum of that year. Pupils must know the reason why music written for certain voices belonging to the register of the deep, the medium, or the high, must retain the key which determines the register to which such voices belong.

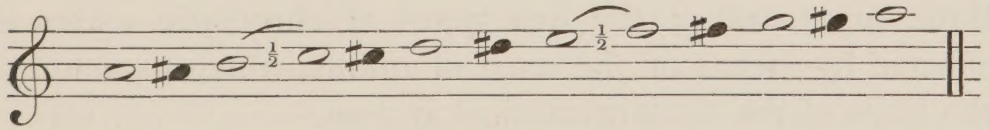
It is also with reason that the author of the programme has put down for the third year the study of the keys of *ut* (C). Most choral works are written in this key for tenors, sopranos, and contraltos. At the Brussels Musical Congress, August 16, 17, 18, and 19, 1884, the first section, which dealt with the various questions touching musical education, passed a resolution in favour of the propagation in schools of the study of the key of *ut* (C).

Formation of Chromatic Scales.—The formation of chromatic scales dependent on each note is effected by taking two diatonic scales, one major and the other minor, third type (antique). Then, by adding to each of them the five chromatic half-notes comprised between the five notes of the diatonic scale, two types of chromatic scales are obtained, by means of which the various chromatic scales of both modes are formed.

1st chromatic type formed by means of the major diatonic scale :



2nd chromatic type, formed by means of the minor diatonic scale (antique, 3rd type) :



Ascending changes ♯ ♮ should of preference be chosen in ascending chromatic scales, and descending changes ♭ ♮ in descending scales.

The system of Music according to Harmonics.—Certain authors explain the constitution of scales as a consequence of the resonance of sonorous bodies, i.e. of harmonics.

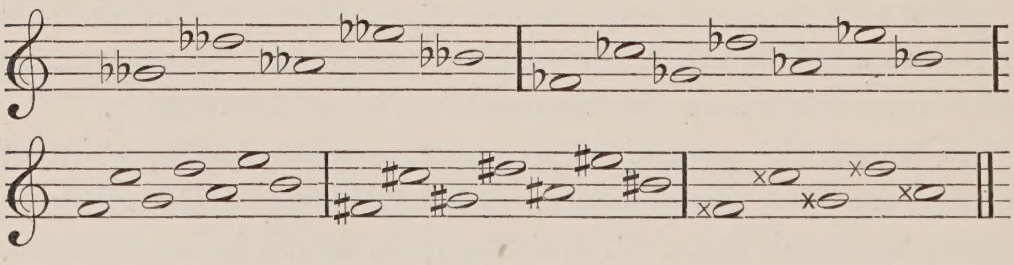
A sound, the note C for instance, is taken as the point of departure of a major scale. This principal note will give as an harmonic the 12th and the 17th, which being lowered, the 12th by one octave, and the 17th by two octaves, will become the quint and the tierce major of the principal note. These three notes, *do mi sol* (C E G), simultaneously

sounded will form the perfect major chord of the note G. Taking the third note of this chord as key-note, we obtain the harmonic *si re* (B D), and consequently a second perfect major chord *sol si re* (G B D). Finally, taking the note *do* (C) as first harmonic, we have the note *fa* (F) as key-note, and *la* (A) as second harmonic of the note. These, simultaneously sounded, will produce a third perfect major chord, *fa la do* (F A C). By successively placing in successive degrees the different sounds found in these three chords, taking F as a key-note, one obtains the notes of the scale of C major, which serves as a type for the formation of all the others.

The same process is followed in the minor mode. The tierce of each of the perfect chords found being minor, the 3rd, 6th and 7th degrees of the scale are, relatively to the major scale, to be lowered half a note. One obtains thus the minor "antique" scale (3rd type). For the harmonic scale (1st type) it suffices to raise by half a chromatic tone the 7th degree of the "antique" scale. For the ordinary minor scale (2nd type) raise by half a chromatic note the 6th and 7th degree of the "antique" scale.

Quint Scales.—According to Barbereau, a French physician, the constitution of the major and minor scales of the three types, and of the five types of chromatic scales, is effected by means of the scale of quints, which thus forms the basis of the modern musical system.

The quint scale is composed of thirty-one sounds, rising from quint to quint. The key-note is G 𝄫, consequently the 31st note will be A ×.



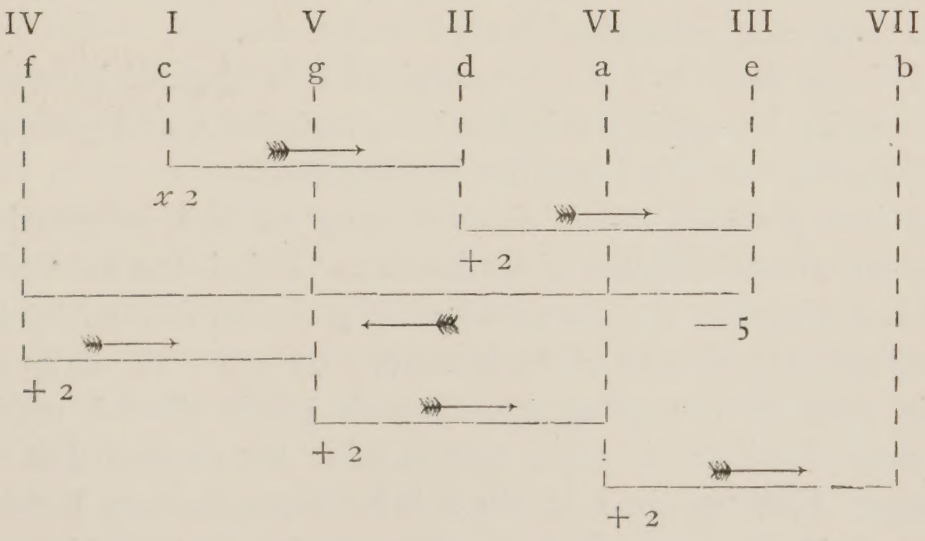
The thirty-one sounds as placed give rise to every diatonic and chromatic interval. These latter differ, according to the greater or lesser number of quints placed between them.

The sign + indicates the direction towards the right; the sign — towards the left. A figure after one of these signs indicates the number of quints which determine the interval; for instance +2 means that the second note of the interval is two quints further towards the right than the first note of the interval. The sign −5 means that the second note of the interval is five quints nearer the left than the first note.

The major diatonic scale being composed of seven notes, we take a series of seven successive notes in the quint scale, *fa do sol re la mi si* (F C G D A E B). The interval of quart major forms the limit of the series; thus in starting from F, the first note of the interval, to B, we find six quints towards the right, therefore the quart major would be represented by + 6. If we wish to form the diatonic major scale of C, representing C as tonical note by *x*: from C to D (second major) +2; from D to E +2; from E to F (second minor) −5; from F to G +2; from G to A +2; from A to B+2; from B to C −5; these signs, placed in succession, representing the intervals of the scale, we have the formula:

$$x + 2 + 2 - 5 + 2 + 2 + 2 - 5$$

Applying this to the seven successive notes of the quint scale we shall find the place occupied in the scale by each of these seven notes:



The two extreme notes iv. and vii. show the major placed on the fourth degree. By the same process are obtained the three types of minor scales and the five types of chromatic scales. The study of the quint scale as indicated in the programme of the Normal School is not very complicated. Pupils being well grounded in the composition of all the scales (programme of the first and second years), they easily learn to find the formula for each of them, having been initiated in the formation of the major scale.

Harmony.—Study of the first notions of harmony is of very great importance to teachers, especially those who inhabit the country.

A teacher who succeeds in forming a choral club will, of course, be called upon to undertake the musical direction thereof. He should be in a position to analyse the pieces he gives out, to form an opinion as to their effect, and to occasionally accompany a private chorus. Harmony teaches us the *raison d'être* of all that is written in music.

If a musical inspiration comes to us, our knowledge of tonality allows us to transcribe it on to paper; but if we wish to develop it, to provide it with an accompaniment, we must know the particular rules relating to combination of sounds and to their relation to each other. This is harmony. The study of harmony included in the programme only comprises "common" chords, major and minor, and the "seventh" chords with their variations.

It is on these two fundamental chords that all harmony is based. By adding substitutions, variations, and prolongations, the study of harmony is completed.

Piano preludes.—One feature only of the programme appears to me difficult of realisation. This is the execution on the piano or the harmonium of preludes formed by the fundamental chords of each note. In order to carry out this part of the programme, each pupil should render himself familiar to some extent with the keyboard of the piano. Has he time to do this? Nevertheless, I think that if it were possible to give pupils some notions of

the violin, the piano, or the harmonium, the knowledge would be of the greatest utility to them.

Scale-singing.—In this very complete programme, the practical part, i.e., scale-singing, occupies the largest place. Numerous exercises for one, two or three voices, are recommended.

Chorus-singing.—The gathering of the scholars of the second and third years together, for the singing of two-, three-, and four-part choruses, is an excellent practical lesson for the study of collective singing.

Solo-singing.—Among the various tests to which pupils are submitted at the final examination, one consists in executing a school-song chosen from a repertory of twelve pieces which all have learnt during the year. The examiners do not consider the quality of the voice, but give their opinion on the correctness, the respiration, the articulation, the pronunciation, and the expression displayed.

Time devoted to music.—Does the time devoted to musical studies at the Normal School permit of the successful carrying out of all the items contained in so complete a programme? I think that this question could be answered affirmatively, if the musical programme of the Primary School were properly applied, and if the classes in the preparatory course were presided over by the Normal School professors. But what do we see every year? Pupils present themselves at the preparatory classes, and even at the Normal Schools, not only badly prepared, but even devoid of any musical knowledge.

Ignorance in this branch cannot, however, be made the cause of a refusal of admission to the Normal School. Neither can the professor abandon these pupils to occupy himself only with those who have given satisfaction at the entrance examination, or who possess more or less aptitude. He must devote himself more especially to the least advanced, and thus he suffers by losing time which he can with difficulty regain.

Conclusion.—Strict application of the programme in the Primary and Preparatory Schools, will sufficiently prepare

any scholar, on entering the Normal School to successfully follow the course of musical instruction. The Normal School programme rationally carried out in regard to method and theory, will enable any teacher to impart the elements of musical education with success, unless afflicted with a defective musical organisation.

Thus, the object of the legislator will be attained, if not immediately, at least in the near future; and musical instruction, being included in the number of compulsory subjects in the systems of primary and secondary education, will have caused a taste for music to penetrate among the masses.

TEACHING OF GEOGRAPHY.

SATURDAY, AUGUST 9, 10 A.M.

Chairman: The Lord REAY.

ON THE TEACHING OF GEOGRAPHY.

By Commander V. LOVETT CAMERON, R.N., C.B.

IN the teaching of geography, every place that the pupil is taught to know by name should also have its climate, means of approach and departure, manufactures, and all relating to it carefully explained. A game I remember as a child—where by drawing lots we got the name of a town or place in turn, the route to which had to be explained, and its lions described by the holder, the next drawer then taking this place as his starting-point to relate in turn his journey to a new place—could be made most intensely useful. In this game maps should always be used, and they should be of as large a scale and as accurate as possible.

The right use of maps is a most important point in geographical education. We too often put into the hands of children most elaborate and finished maps, which only puzzle and weary them by their complexity. We might as well expect a baby to appreciate a Raphael better than its gaudy illustrated alphabet. Maps for beginners should avoid detail as much as possible, and a series should be constructed gradually growing more full of matter as the pupil progresses in knowledge. The first maps should show only

outlines and localities, the next the same with rivers, to the next we would add the hills, to the next the roads, and so on till the perfect map is before us. Each line and symbol should be explained, and an intelligently-instructed pupil should at last be able to give an accurate description of a country and its resources from a map without any letter-press whatever. Remember, a map properly constructed is as much a work of art as a picture, and should convey an idea to the mind's eye as perfect as a picture does to the physical.

I wish only to make a very few remarks on the question of our education in geography. In the board and village schools geography is taught much better than in those above them; and I have been flattered by seeing on the cover of a small and handy atlas, used in these schools, one of the best maps of Central Africa, on which my route across the Continent was laid down. In schools which are frequented by a class above those for whom teaching is provided under Government inspection, we find that the ignorance, both of teachers and scholars, is lamentable and deplorable, and even at our large public schools the lack of attention paid to this most fascinating of subjects is so great, that the Royal Geographical Society has regretfully been forced to withdraw its prizes, and appoint Mr. Keltie, of the Statesman's Year-book, to enquire into the subject of geographical education at home and abroad.

I am now interested in the formation of a society for the promotion of the study of geography from a commercial point of view, and, as day by day my work goes on, the more astonished I become at the want of knowledge in this especial branch displayed by many of our business men.

I wish here briefly to show how we cannot expect anything better whilst the system of teaching usually pursued is continued. Long lists of names of places with their latitude and longitude are insisted on, and the unfortunate child has to learn them all by rote, and gets them jumbled up together in the most bewildering confusion. It is no doubt necessary, for the proper comprehension of history,

that a certain amount of ancient and foreign geography should be known, and also that for a proper understanding of their duties and privileges it is imperative that each Englishman and Englishwoman should have a knowledge of that history which relates how those privileges were obtained and those duties incurred.

So far in regard to teaching names of foreign towns and countries; but there comes an immediately necessary branch of geography which is little known. How difficult it is often in a rural district to get an accurate and distinct direction to a town, village, or farm. The first steps to be taken in teaching geography should be the insisting upon the children having an accurate knowledge of their own neighbourhood, the whereabouts of the forge, the cricket ground, the best pool for bathing or crayfish in the stream, the names of the inhabitants, and what are their occupations; then, as the child grows older, to extend the same knowledge to the county, then to the whole country, and then abroad. As far as possible excursions and treats should be used to instil some useful lesson; the children, after visiting any place, should be questioned as to the road thither, what they saw, and in what respects it differed from their own neighbourhood. For scientific geography to be fully explained and exemplified no great extent of country is necessary, as was so brilliantly shown by Mr. Clements Markham at Sheffield in 1879, when he clearly demonstrated that a man could study geography as usefully and fully in a few square miles of English ground as by traversing a continent, or discovering a nation.

DISCUSSION.

Mr. MARVIN said all present must have been much pleased with the remarks which had fallen from Commander Cameron, and he felt quite certain they would go away convinced with the necessity of a more comprehensive

knowledge of geography. His experience of maps was not of a very pleasant character. He had several times issued books, and when he desired to obtain maps for them he had constantly met with great difficulty in getting them in England. In Russia there was not only a widely-diffused knowledge of geography, but the Government rendered considerable service in spreading that knowledge; the Russians were great explorers, and paid a good deal of attention to geographical knowledge; they not only equipped expeditions every year to various parts of Russia, but produced maps on a very extensive scale. There was certain machinery, to a very small extent, at the English War Office for the production of maps, but they could only be obtained at a very excessive cost. At the present moment, for instance, with regard to Afghanistan, there were a number of maps published by the War Office, but they were all of them more or less confidential, and could not be obtained even by officers in the army; whereas Russia, which had recently made annexations in Central Asia, had maps showing those regions and Afghanistan, which could be obtained at the War Office, St. Petersburg, for *6d.* or *7d.* This showed the great importance which Russia attached to geography and maps, and the assistance she gave in the diffusion of such knowledge. At the present moment there were two great movements taking place in England, one a Democratic movement in favour of the extension of the suffrage, and the other an Imperial movement for the confederation of the Empire, and these two could never be harmonised together without a much wider diffusion of geographical knowledge.

Brother ALEXIS (of the Christian Brothers), who said he must ask leave to address the meeting in French, the only language which was habitual to him, then gave an exposition of his manner of teaching geography, of which the following is a summary. He said that having been long impressed with the importance of this subject as an element of education, he had carefully studied it in order to be able to teach it intelligently, and had published his

first manual of geography in 1865; and later, in 1872, a little book, which he held in his hand, entitled *Méthodologie*, in which his views were more fully developed. Geography ought to be based on observation; in fact it was simply a description of things which exist in nature. As a thing cannot be described until it has been seen, it was evident that geography must proceed upon the sense of sight, and this faculty must be first called into play in teaching it to children; it was a great mistake to begin by making them commit lists of names and figures to memory. The sight being employed first, attention was thus aroused, and afterwards the reason and imagination were brought into play, and by reproducing what they had seen the whole became impressed on the memory. The eye and hand should go together at the commencement, and afterwards the pupils should be required to draw maps without the aid of the eye, guided only by intelligence, imagination, and memory. Geography was a very large subject, and for its rational teaching a great many materials were required, which he would afterwards specify, but the most important point was a correct method. Local geography should first be taught, the correct principle in all teaching being to proceed from the known to the unknown. The method of synthesis was followed; a plan of the class or of the school being first made, and then one of the canton, followed by others of the department and the country. A slate or blackboard was placed horizontally in the middle of the class, and the children were taught to indicate upon it for themselves the walls of the class-room, their position being represented upon the plan by four lines in the form of a square or rectangle. This plan was afterwards suspended on the wall, nothing in it being changed. After the study of the school-room, the playground and streets adjoining, and those which led to the church or railway station, were added. On the same principles could be obtained hydrographic, agricultural, ethnographic, economic, or historical charts or plans, and finally a general map of the commune, the canton, the country, or of

Europe. The hypsometrical map or chart afforded the best means of conveying correct notions about the surface condition of a country. Specimens of hypsometrical charts would be found exhibited in Room 5 of the Technical Institute, together with a little model which explained the meaning of the conventional colours adopted. It was a plaster cast in relief, painted in oil, and capable of being immersed, without being spoilt, in a kind of aquarium which might be filled with water so as to submerge successively different portions of the country represented, from the lowest valleys to the point most elevated. The same effect might be produced by pouring in the water. In stopping at each level it would be seen that the natural features of the country could be made to disappear in the order of their elevation. By means of the hypsometrical chart it could be demonstrated to the eye that if the bed of the Thames were raised by only twenty metres, all London would be submerged. Another means of teaching local geography was found in topographical promenades, but this means had the disadvantage of being very costly. A promenade from Brussels to Antwerp might be easily undertaken, but an excursion into Switzerland would be practically impossible. It was, however, possible to bring Switzerland in miniature into a Belgian school by means of plans, charts, and photographic views. He now approached a more delicate point, but one which was of great importance. Formerly in France, and it was the same in Belgium and Germany, it was the custom to mark as the division between two countries either a chain of mountains or a river. For instance, Italy was separated from France by the Alps, and France from Germany by the Rhine. The result was that the pupil believed that there was always water or a chain of mountains parting two countries. The use of the hypsometrical chart would dispel many of these illusions. The chart had induced almost a revolution in the teaching of geography in Belgium, and even in France. In the Belgian Section, by means of a chart and an aquarium in which variations of level to the extent of 253

or 300 metres could be shown, it could be very clearly indicated what an enormous difference would be made in Belgium, and many parts of Europe, by an elevation of 200 or 300 metres more or less.

Information was daily given in the Brothers' Section illustrative of the employment of the hypsometrical chart in the teaching of geography. He had also published the little work he held in his hand, and others, which would be found in Room 5 and in the Belgian Section. In it, he commenced by describing geography as the science of the description of the earth. It treated of man and of nature, and, according to the branch pursued, would be called political, historical, ethnographical, or physical geography. It might be regarded from both the theoretical and practical point of view as a means of extending human knowledge, or of increasing wealth, or adding to the enjoyment of life, and making the history of every people. The English were tourists *par excellence*, and to the tourist a knowledge of geography was a very practical advantage. A knowledge of geography was indispensable in all military operations. It was the geography of a country that decided its history. There were two neighbouring regions which had played a great *rôle* in history. There was Waterloo which they (the English) knew a little about, and there were the plains of North Italy, which for centuries were the battleground of Europe. Let them mark upon the historical chart the spot where the English, the French, he might say every people, had met in hostile array. In the Ardennes and in Belgium were found certain conditions essential to military operations. In the Ardennes, on the Belgian frontier, the communications were very difficult; and in the plains of Belgium, easy: in the former it was difficult to move or feed an army, and in the latter supplies were abundant and transit rapid. In the one case, where railways were impossible or were easy to destroy, an army could not subsist; in the other, the fertile plains had been the scene of many struggles between the French, the English, and the Germans. How was it that in one portion

of this region—the plain—there was a population as large as 400 persons per square kilometre, while in the other portion the population did not exceed 40 per square kilometre. The plain was ten times more populous than the mountainous Ardennes. Again there were springing up societies engaged in what might be called colony hunting (*la chasse aux colonies*). How were they to select wisely the most advantageous positions for founding colonies? Geography was there to tell them. The great experience of the English as a colonising race would make them easily comprehend the necessity for Belgium, with its population of 200 or 400 per kilometre, of finding an outlet for its surplus population. These were some of the ways in which geography might be viewed from its utilitarian side. As a means of training, it was equally effective. It was well adapted to develop the intelligence, the reason, and the judgment. We had here the Thames. What was its course? Where was it going to? The answers to these questions would exhibit to the child natural causes and their effects in a manner more interesting than perhaps any other study than geography could afford. It was, above all, necessary to attract the attention of children, and there was no study which afforded the means of doing so with greater success than the study of geography. From the practical point of view he had indicated a great number of objects which might be attained by the study of geography. He might add that no master could teach without maps, globes, &c. —without tools, in short—but the pupils should make them all for themselves. The speaker concluded by describing the method adopted by the Brothers for multiplying their maps, which had several features that would recommend them to a great practical nation like the English.

Dr. O'REILLY (of the Christian Brothers) said he would simply supplement with a few remarks the explanation which had been given by his confrère. It struck him there was a great want of science in the method of teaching geography generally followed in this country; and, as a

necessary consequence, the standard was low. We had recently heard the complaints made by the Royal Geographical Society as to this deficiency; and it was a significant fact that this learned body had declined to continue their awards of prizes to the writers of the best papers in geography in the University local examinations, owing to the inferior character of the knowledge elicited. Quite recently they had nominated a gentleman to inspect the geographical appliances in the Educational Section of the Exhibition, and afterwards the most important schools on the Continent, with a view to finding out the best methods, so that a new impetus may be given in this country to the study of geography. Two days ago he had had the pleasure of introducing to that gentleman his colleague, Brother Alexis, who explained the method of teaching geography followed in the Christian Brothers' schools, as well as the models and maps which he himself had designed. This inspector had spent some hours in examining these various things, and probably in a few weeks time he would publish his impressions as to the scholastic and educational value of these appliances.

Mr. WALTER SEVERN, as an illustration of the need for better instruction with regard to geography, said very few people knew what caused the rise of the Nile. He had asked a great many people, but only two seemed to know, and as this subject of Egypt was now so interesting, it was rather surprising it was not better understood. The answer generally given was that it was owing to the melting of the snow in the Mountains of the Moon, or that the water came down from the Albert Nyanza; but it was really caused by a tremendous flood from Abyssinia which was taking place at this moment. The Nile rose four feet yesterday, according to the telegrams; there were eight rivers from Abyssinia including the Blue Nile, which came down very suddenly indeed, and caused this extraordinary rise in the Nile below Khartoom.

Mr. SONNENSCHEIN said he could, from personal observation, confirm much of what Brother Alexis had told them.

He had had the honour of visiting a training college at Brussels with an inspector, and was present at the elementary geography lesson given to the children by the pupils. He was exceedingly delighted to see the amount of mental activity exhibited by those children. How with the metre in hand they went about and measured the length and breadth of the schoolroom, and how the plan was drawn on the blackboard ; a string was drawn across the room, from one end to the other, which was directly north and south indicating the meridian, so that the children had a very clear idea of the map of the schoolroom from their personal observation. But he must also defend England from some of the charges brought against her. On inspecting the elementary schools one found the first standard enjoined very good teaching in local geography, for which they had to thank Mr. Mundella, the map being drawn by the teacher from his own observation, and in this way correct work was done ; but the second standard departed from this excellent plan, and the children were taught the shape of the earth, which they could not yet understand. It ought to continue in the same correct way in which they began. Brother Alexis had spoken of the map of Switzerland on the reduced scale, but if he had known this subject was coming up, he would have brought with him the Royal Atlas published in this country, which had all the countries of the world delineated hypsometrically, the actual elevations of the mountains and depressions of the valleys being shown with the rivers flowing between them ; no doubt some countries were more correctly represented than others. This Royal Atlas had received the approbation of perhaps the greatest living geographer, Count Moltke, for though he was best known as a strategist, he had been a teacher of geography ; a man who certainly made his mark in the world from his precise and minute knowledge of localities was an authority on such matters. In Germany, where all this really began, the maps were constructed in this way. When the children were forward enough they had a map given them showing the mountains without

the rivers, and they had to guess in which way the rivers would flow, and then fit the rivers in. Then another map was given them of the same region with the rivers and not the mountains; and, thirdly, a map with the rivers and mountains combined, so that they saw the connection between the two. The same with the watersheds. For example, when the map of Europe was taught, and that was only at an advanced stage, the watershed which began in the north of Russia, and worked its way down tortuously to the Rhone, was carefully drawn on the map, and the children were expected first to name from the map all the rivers in succession, and show how it was that they flowed in one direction rather than in the other. The river basins were clearly marked out, and the position of the main sites, and the chief water courses also were clearly marked out on blank maps. These maps were like blackboards, where the outline was drawn in permanent colour, and the children put in the features of the country, which were afterwards wiped out again. Geography, like every other study, should be taught inductively. Causes were placed before the children, and they were expected to predict the consequences which would follow from them. It was not a matter of very much importance that a child should remember all that he learnt. That was the great defect of much of our teaching. A child was expected to be a sort of encyclopedia, to remember all the names of mountains, their heights, the lengths of rivers, and so on; but if the child had reasoned out carefully the phenomena with which he was made acquainted, it was a matter of the smallest importance that he should twelve months hence be able to shovel out again the cartload of knowledge which had been shovelled into him. As he said, this was a very great defect, but he trusted we were on the high road to mend it. Commander Cameron would forgive him if he objected to one point in his very admirable paper, namely, that which referred to the map of Colorado. He began with a map which gave the triangulation of the country. Now, before you could bring the triangulation home to a

child, a great deal of water had to run to the sea ; it was a very long process, and he had known many teachers who did not know what this process meant. Before coming to that, the child should be given, as Brother Alexis told them, the local map, and then he had some idea in a rough way of the country, and it was not until he had learnt a considerable amount of triangulation that a triangulated map could be properly laid before him.

Dr. HOHLFELD (Dresden) said, as he listened to the last speaker he could not help wishing to make a few remarks on what had come under his own observation. He had lived in England, France and Belgium as a teacher of German, and had only studied geography by the way, but he found, especially when he was in France, how deplorable was the amount of ignorance of geography, of which he would give just one instance. He was teacher in a village near Paris where one of the teachers had left, and another one was engaged. Of course he made his acquaintance, the French being very sociable, and then he told him he had to give a geography lesson the next day, and there were several things he did not know much about, and asked him if he ever taught geography. He replied that he had not, but if there was anything he could assist him in he should be glad to do so. This French teacher then said he had been looking all over the map of the world and could not find Denmark. When he showed him where it was, he said, "Oh, that little thing," and then added, "as you are so well up in geography, perhaps you can also tell me where the Island of Sicily is ; I have been hunting for it ever so long." He then told him it was a little triangular island at the south of Italy. He was very much obliged, and said there were a lot of questions in the geography book which he could not answer ; for instance one was, what continents are traversed by the equator? and asked if Europe was one of them ; he told him, "No, not Europe, but Africa, Asia and America," whereupon this gentleman made a note in pencil, and asked him wherever he learnt all these things. That was

one instance which had come under his notice. When he had been living for several years in England, France and Belgium, he wished to go back to his country, and a situation happened to be open in a school for geography. and as he continued to be very desirous to go back, especially to his own native town of Dresden, he was bold enough to apply for that situation, and was fortunate enough to obtain it. It was in a ladies' school, and he took pains to read up the subject pretty well. He began teaching geography as Brother Alexis had told them, beginning with the schoolroom. He drew a plan in chalk on the blackboard, and every girl in the class did the same, just as the schoolroom would look if seen from above. When that was done they drew the house and garden where the children played, the adjoining streets, the square in which there was a theatre, the fountains, and so on, and in that way they went on and drew the Elbe, which ran through Dresden, and the different bridges crossing, and so on ; and in that way beginning from their own home they got to the geography of other countries.

Mr. LANGLER said that Geography was a many-sided subject. The main idea in Captain Cameron's paper, however, seemed to be that *commercial* geography should be, at least in this country, of the highest importance, and the modes in which it should be promoted should be chiefly by those expeditions, one of which he himself had conducted in so remarkable a manner, and one of which was in progress to ascertain the necessities of the various nations of the earth, especially in Africa, in order to find openings for a large amount of our manufactures. The gentleman from Belgium who had addressed them had given an admirable exposition of the practice adopted in the school, but he spent most of his time in illustrating in a most lucid manner, what was meant by physical geography, and also how and when it should be taught, each of which points was most important. A very large amount of most valuable geography might be taught even in infant schools without any knowledge whatever of topography. What

had been chiefly dealt with that morning was the construction of certain kinds of maps with a recognition of Pestalozzi's idea of going "from the known to the unknown," which last principle was perfectly correct. It was not possible to take children generally very far away from home, and when an object was out of sight and inaccessible, it did not much matter whether it was 10 miles or 1000 miles distant, so long as the children had a correct idea of it. The ethnological portion of geography might be taught in many different ways, and be altogether independent of maps. The ultimate perfect geographer must certainly know maps, but the first object of instruction to children was an answer to the question, "what?" What sort of a country is it, hot or cold? What animals live there? What are the people? What are the industries? What determines the habits of certain people, say in the Arctic regions or nearer the Equator? "What?" was the first question, not "where?" that came next. Then they were taught topography, and then they must be taught even where Denmark and Sicily were, but it was not at all necessary that they should know where Denmark was in the first place, before learning a good deal about Denmark and its industries, the production of the land, its exports and imports. It was a great but common mistake to crowd children's minds with mere names. Lastly came the question "Why?" not necessarily lastly in connection with all subjects, but lastly in order of thought. Why do these streams flow in this direction rather than in the other? Why do they flow into the Atlantic Ocean? Then came the question of the watersheds which determined the flow. Why were the regions at the Equator hot and those near the Pole cold? These were the questions in order. First, "What?" referring to actual things and which might be answered by description and without maps; secondly, "Where?" which could be taught by topographical maps in the order expounded by Brother Alexis; and, thirdly, "Why?" But the reasons could not be understood, all of them, by little children, and he

quite sympathised with Mr. Sonnenschein when he said that in the second standard the 'form of the earth' should not be a subject for examination. They could no doubt learn it was a 'globe,' but they had not necessarily the idea because they had learnt the word. Therefore, the last consideration, "Why?" should be reserved to a maturer condition of the intellect. When he was coming from the field of Waterloo, he asked a question of a gentleman, with reference to the teaching of geography, and he replied that of course the best thing was to go and visit other countries, and that Englishmen learnt a great deal of geography as tourists if they did not at college. Naturally, from his having been thirty years engaged in teaching geography, the conversation turned on that point, and among other things his fellow traveller told him that when going to Scotland recently a gentleman who he thought was a Cambridge undergraduate, came to the train, and, though the carriage in which he was sitting was marked "Glasgow," he asked him if he could inform him whether that train was going to Scotland. That was an instance of extreme ignorance, but which with reference to particular places might be matched over and over again. It was simply a question of *what* facts should be taught; there were millions of facts, and it was a question of selection; and if a person did not know where Glasgow was he was not disposed to be angry with him. One day he was asked where Wix was, and he was quite at a loss. He ascertained it was not far from Manningtree, a town he would have known, but a little place so obscure as Wix it was not necessary for him to know. He sympathised very much with the lawyer who said, "What did it matter to him if he did not know where Nootka Sound was, he had a Gazetteer, and could soon find it." He had recently given a further statement of his opinions on this matter before an educational body, and probably those interested in the matter had had it before them, but he thought it was desirable on this very important occasion to attempt to distinguish between learning geography and learning maps.

Learning geography was not merely a knowledge of topography; there might be a great deal of knowledge of geography without a knowledge of topography, which, however, was indispensable to a complete acquaintance with the subject.

Mr. W. SEVERN desired to add one word with regard to raised maps, which in England were, he believed, extremely dear. He had recently seen an excellent book, or collection of raised maps, which he believed was made in Germany. His children, who were Kindergarten children, took less interest in geography than anything else, but immediately he got a raised map of Great Britain, a most beautiful German map, showing even some of the snow on the hills in Scotland, the children at once began to take an interest in places they had been to, and even those they had not been to. One thing they discovered was that the middle of Ireland was one great bog. They saw at once that the whole of the centre of Ireland was once a lake, and was now an immense bog. Many similar interesting matters were brought forcibly to their attention by these maps.

Mr. SONNENSCHEIN said the Royal Atlas, containing fourteen raised maps, could be obtained for 15*s.*

Commander CAMERON in reply said, with regard to the point made about the United States Atlas, he did not produce it as a specimen of what should be used in schools. But the map with the triangulation marked on it simply showed the first outline of the country. The raised maps, and the description given with them showed at once the perfect representation and model of a country, and no doubt enabled children to understand it more easily than the conventional symbols, which on a flat surface represented to the educated eye those differences of height between the tops of mountains and bottoms of lakes. But besides the objection to cost, if a man had to travel about and carry with him all sorts of raised maps they would be very cumbersome, besides which they would not be so useful to a man consulting them for the purpose of measuring distances. As to the commercial aspect of

geography, which was the subject he was especially interested in, a society had now been founded in the city, and the Lord Mayor was going to preside over a meeting in October for the purpose of showing what had been done at present. He found England was decidedly behind other nations in this respect. In Germany there was the central *Verein* of geography, which exercised a most intelligent influence on the course of German trade, and it was owing a great deal to this perfectly legitimate competition on the part of Germans that many places which were formerly in the hands of English merchants were now occupied by German traders. He found that many Englishmen did not know at all where Angrapequena was; and, again, if England had known the value of Acheen he did not think they would have let it be sealed up entirely by the Dutch. As for the general want of knowledge of geography he found it rather ludicrous. Coming down the Danube once he met two Americans, one an old gentleman, and the other an editor of a newspaper. The latter seeing some ships at anchor at Serapi, asked why they did not go up to Constantinople; did not the river go past? When they got to Constantinople he wanted to go to Smyrna. He had a list of names written, and the route he was to take, and he wanted to know whether he could not go from Athens to Smyrna by land. He told him, yes, but it would take him rather a long time. The other man had not the slightest idea where he had been, though he had been travelling the whole time. On another occasion, when Captain Burton was at Damascus, a gentleman came and asked him if he could tell him where he was. He told him in Damascus, and he said where is that; he told him in Syria, he said he did not know where that was, but his old woman towed him round, so that it was not always that a traveller was a geographer. The American editor who thought the Bosphorus was a river, told him he was going to publish a book of his travels, and promised to send him a copy, but he had not yet received it. In conclusion, he would only say that the study of geography was the most

pleasant and interesting of all studies, and was more intimately connected with the different sciences than any other; in fact it was the hand-maiden of all, whilst in turn all others assisted in its development.

The CHAIRMAN (Lord Reay) said this meeting had been a very appropriate close of the Conference, and they were much indebted to Commander Cameron for his paper, and also to Brother Alexis for his very elaborate essay on the manner of teaching geography. All educational questions were connected, and the teaching of geography, like the teaching of all other things, must be made thoroughly interesting and pleasant. The lesson taught that morning, was that if geography was not popular in schools the blame was not with geography, but arose from its being wrongly taught by incompetent teachers. As had been well said by Brother Alexis the teaching of geography excited the imaginative faculties of the child; it excited his intelligence through the eye, and after he had used his eyes he should be taught to reproduce with his hands what he had taken in. He must say there was in the speech of Brother Alexis one thing which he had heard with some surprise. He justly advocated what he called topographic walks, but he went on to say afterwards that the Germans were purely a contemplative nation. He must say that the result of this German contemplation had been illustrated by certain topographic walks which to his mind did not at all partake of a contemplative character, and he did hope that the study of geography would lead to other results than to topographic walks by large masses of men, all having in their pockets maps of the country which they invaded, and teaching the natives their own geography. Such a mode of teaching was not contemplative, but a great deal too practical, and he was bound to say he hoped for a more peaceful geographical education in the future than that of a German army corps. No doubt there was a great deal of ignorance prevailing with regard to geography, of which some amusing instances had been given, and which might be indefinitely multiplied. It was not always due to

the fact that people did not care about geography, but often on account of the deficiency of maps and other appliances. For instance he was told recently by a German gentleman that he had seen with his own eyes at one of the French Exhibitions a map on which the northern part of Germany was described as a sandy plain inhabited by vagrant hordes. In this building they had a number of different maps exhibited, and he sincerely trusted that at the close of this Exhibition it would be impossible to tell such tales respecting it. In conclusion, he would say that this subject had an extremely important relation to what had been so justly called by Brother Alexis *La Chasse aux Colonies*, the competition which no doubt existed nowadays for the possession of colonies. This was a matter of vast importance which touched England very nearly, and they were much obliged to Brother Alexis for calling attention to it; but it was a matter so extremely delicate, that he would not say more than that he fully understood its great significance, though fortunately there still was much elbow room in the world.

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